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ABSTRACT

This teacher's curriculum guide is designed as an interdisciplinary resource on alcohol education for teachers of Grades 7-12. The guide is divided into the following parts: (1) Why should we teach about alcohol? (2) What should we teach about alcohol? (3) How should we teach about alcohol? (4) Suggested content information for the teacher (alcohol in history, current attitudes toward drinking, reasons for drinking and abstinence, alcoholism, alcohol and driving); and (5) Teaching resources. (Author/JLL)

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ED141648

ALCOHOL EDUCATION

A TEACHER'S CURRICULUM GUIDE FOR GRADES 7 - 12

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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THE UNIVERSITY OF THE STATE OF NEW YORK/THE STATE EDUCATION DEPARTMENT

ALBANY 12234

BUREAU OF DRUG EDUCATION

1976

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1976

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FOREWORD

The abuse of alcohol has only recently been recognized as a major contributor to many physical, psychological and sociological health problems even though it has been a serious issue in our society for generations. At the present time there are an estimated 10 million alcoholics in the U.S., as well as millions of others who abuse alcohol to the extent that it interferes with their ability to function. A review of alcoholic statistics indicates that the use of alcohol is a factor in many crimes and injuries - 50% of fatal automobile accidents, 30% of suicides, 40% of snowmobile accidents, 53% of fire deaths, 64% of homicides, 45% of drownings, 86% of fights and assaults in the home, and 71% of accidental poisonings to mention a few. Can our society be spared a substantial portion of this pain and suffering? The Board of Regents and the staff of the State Education Department believe it can. In an attempt to do so the Department has developed new alcohol education guides -- one each for grades K-6, 7-12, and adult alcohol education.

These new alcohol curriculum guides and teachers' manuals have been designed and prepared to assist school personnel to more effectively combat the alcohol problem through education as a primary prevention vehicle. These materials and approaches used will become more meaningful through cooperation with the resources of various community health-related agencies.

The educational approach should not be didactic but should be student-centered, with each learner being actively involved in the learning process. Such an approach considers the need for individuals to be involved in planning the educational experiences that will effect their respective lives. While there is no simplistic answer to the complex problems of alcohol abuse and alcoholism, emphasis on individual decision making about the use of alcohol holds the greatest promise for alleviating the problem. Over the long run, it is more effective and efficient to prepare an individual to cope with drinking before it becomes a problem than to remedy its destructive effects after they have occurred. It is reasonable to conclude that the cost of developing individual decision-making skills will be more economical than the development of treatment programs in an attempt to restore the health of the alcoholic.

These guides were developed with a recognition of the need for programs which focus on information and attitudes about the use of alcohol resulting in responsible drinking practices. Information alone is not enough, but it does play an essential part in decision making. The development of attitudes and the identification of "behavior norms" plays a major part in making responsible decisions. The following represents a few of the behaviors which will promote these responsible decisions:

...respecting an individual's decision about alcohol - either to abstain or to drink responsibly;

...recognizing that drunkenness is neither healthy nor safe;

...understanding one's own reasons for making a decision about the use of alcohol;

...recognizing the health and safety and fun of all by avoiding intoxication and helping others to do the same;

...choosing to avoid the use of alcohol as a way of dealing with one's problems;

...recognizing that social acceptability does not require drinking;

...recognizing and understanding that alcohol is a drug;

...avoiding riding with drivers who are under the influence of alcohol and discouraging them from driving;

...recognizing that one's attitude and behavior affects and influences others, especially children.

In the curricula, a serious attempt has been made to interrelate the efforts of other governmental and voluntary organizations to those of the schools. In so doing, education becomes a product of a cooperative effort which involves the school, family, industry, religion, as well as other voluntary and governmental health agencies. The schools can and must conduct an alcohol abuse and alcoholism primary prevention program, not only because it is required by state statute (Chapter 674, 1970) but also because they have the responsibility to contribute to a more stable and productive life for each of their students.

As important as these guides may be, the teacher is the most important factor in the success of an educational program. Although a teacher's guide is provided, the program emphasis on a student-centered approach and cooperation with numerous governmental and voluntary organizations may require in addition the need for a teacher training program. Since this is a new curriculum, at least a minimal orientation for teachers is suggested. School administrators are encouraged to arrange regional programs for this purpose.

The staff of the Bureau of Drug Education is available to assist in organizing and conducting such programs. For more information, call (518) 474-1492.

PREFACE

A TEACHER'S CURRICULUM GUIDE - GRADES 7 THROUGH 12

This Teacher's Curriculum Guide is one of a series of three units. Included in this alcohol education series are a curriculum guide and teacher's guide for grades K through 6, curriculum guide and teacher's guide for grades 7 through 12, and one comprehensive unit for adult education which includes both the curriculum guide and teaching suggestions.

Each unit attempts to build on the previous unit; therefore, the following topics are basic throughout the three units. They are:

TOPIC I: THE NATURE OF ALCOHOL.

TOPIC II: MANY FACTORS INFLUENCE THE USE OF ALCOHOLIC BEVERAGES.

TOPIC III: ALCOHOL AFFECTS PEOPLE IN A VARIETY OF WAYS.

TOPIC IV: RESPONSIBILITY FOR THE CONTROL OF THE USE OF BEVERAGE ALCOHOL RESTS WITH SOCIETY.

TOPIC V: THE RESPONSIBILITY FOR THE TREATMENT OF INDIVIDUALS RESTS WITH SOCIETY.

ACKNOWLEDGEMENTS

Grateful recognition is given to the New York State Department of Mental Hygiene, Division of Alcoholism, and the many school administrators, teachers, and specialists who will help to evaluate this material. Their generous cooperation in the development of this publication exemplifies the concern we all share in solving one of today's more complex problems, the abuse of alcohol in our society.

Grateful appreciation is extended to the Nebraska Department of Education for use of some of their materials on value clarification, the Illinois Office of Education for permission to adapt some of their teaching materials for this publication, and the Instructional Development Unit of the Educational Communications Center of the State University of New York at Albany for their assistance.

Special recognition is extended to the Alcohol Education Research and Writing Committee: Mr. Anthony G. Lento - Chairman of the Committee, Associate Professor of Education and Drug Education Coordinator, State University of New York at Albany; Mr. Robert Christiansen, Registered Pharmacist, Drug and Health Education Coordinator, Watervliet School System, Watervliet, New York; Mr. George Harris, Alcoholism Center of Rensselaer County, Inc.; and Miss Nancy Malinowski, Program Assistant, Social Studies Teacher, Shenendehowa School System.

The specialists who contributed professional expertise to this publication include: Dr. David Serrone, Associate Professor, School or Nursing, State University of New York at Albany; Dr. Arthur Stein, Professor of Pathology, Albany Medical College, Albany, New York; Dr. Lois Stiglmeier, Coordinator, Prevention Education, Division of Alcoholism, Department of Mental Hygiene, Albany, New York; and Mr. David Schenck, Assistant Professor of Education, Supervisor of English, State University of New York at Albany.

These materials were developed through a grant from the State University of New York, The State Education Department, Division of Health and Drug Education Services. The overall supervision of the research, writing and compilation was under Anthony J. DiBenedetto, Chief of the Bureau of Drug Education. Albert E. Bedworth, Associate in Health Education, the Bureau of Health Education, provided valuable consultation with the writing team and was the liaison person from the Division of Health and Drug Education Services.

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-CHAPTER I-

WHY SHOULD WE TEACH ABOUT ALCOHOL?

WHY SHOULD WE TEACH ABOUT ALCOHOL?

Since drinking is an increasingly accepted pattern, a widespread social and cultural custom, the irresponsible or uncontrolled use of alcoholic beverages presents major problems to society and individuals. Of the 94 million Americans over fifteen years of age who drink, more drink in moderation, without apparent adverse effect, and with the tolerance, if not the sanction, of knowledgeable authorities.

The problem of alcohol abuse is serious and immensely complex. Stringent laws and formal and informal sanctions have failed to prevent (1) the promotion of the misuse of alcoholic beverages, and (2) the abuse of alcohol among teenagers.

The solution is no longer a "for - or - against" controversy. Schools can and should approach alcohol education in the same manner as they do other social problems which affect human beings. Education along with legislation and community action can at <u>least</u> help to develop the healthy attitude that is necessary to meet the demands of today's society.

Any discussion of alcohol poses special difficulties because of the emotional biases regarding the topic. Many critics, for instance, may say that a teacher is actually teaching "How to Drink" rather than presenting factual information for students to make their own decisions concerning the use of alcohol. Conversely, to say that a teacher must teach about the "non-use" of alcohol might conjure up the image of a temperance lecture in the classroom.

As societal restrictions on the use of alcohol lessen, the need for more <u>positive</u> alcohol education in every school in New York State grows accordingly. Personal decisions relating to the use of alcohol will be necessary for every student throughout life, regardless of his or her future occupation or economic status.

It is very important, therefore, that schools recognize the seriousness of the problem of alcohol abuse by making the instructional part of a drug abuse program an integral part of the total curriculum. Coordination of the total program within each school district and school will prevent unnecessary duplication of efforts and materials being presented.

The school years are, indeed, impressionable ones for fifty-two million students who compose a fourth of the nation's total population. These are developmental years when habits are formed: habits which last a lifetime, habits which can uncover or mask the strains and stresses of contemporary life. Many of the habits learned during the school years will be reflected in health and social problems of the future adult years. Do we wait until complex and complicated alcohol-related problems have become chronic afflictions before intervening, or should preventive efforts be started while students are still accessible and most impressionable?

According to 1973 findings by the Select Committee on Crime, "Drug abuse (which includes alcohol) in our schools ranges from serious to epidemic. Yet, with rare exception school authorities were most reluctant to acknowledge the extent of the problem." Regrettably, the policy of most school boards seems to be one of turning away from the problem by refusing to acknowledge the extent to which it exists at the local school level.

Education Law, Section 804 (1952), of New York State requires that students in New York schools receive certain instruction regarding the harmful effects of alcoholic beverages. Students should know what such beverages are, what society thinks of them, and what the implications of their use are. Even more recently the education law, chapter 674 (1970) covers a more comprehensive health education program.

This Teacher's Guide is designed to provide teachers with information on which to base such instruction. It is an attempt to put between covers certain information regarded as essential if the subject is to be approached intelligently and rationally.

In spite of the effort to minimize bias, it is essential to present these underlying assumptions with which most persons are likely to agree. For instance:

1. For most adolescents in most situations, abstinence from alcoholic beverage is more prudent and desirable than indulgence.

2. It must be acknowledged that individual young people will find themselves in situations where they must make their own decisions about indulgence.

3. Adolescents are more likely to make wiser decisions if they know some specifics about alcohol and its sociological, psychological and physiological effects.

The decision to drink or not to drink should be based on knowledge rather than on outside pressures or the advice of friends, and it is an important responsibility of the school to provide both the information and a forum for its free discussion.

Young people also need to develop skills in handling and evaluating information. They need to acquire skills in working together, participating in groups, and in reporting their findings. Educators must also seek to develop desirable attitudes toward an understanding of the more acute social and economic problems related to the excessive or unwise use of alcoholic beverages. These attitudes and appreciations are difficult to teach, but they are extremely important.

A carefully planned program of instruction about alcohol problems integrated into the curriculum areas of health, social studies, science, and driver education would be most effective and desirable. Other areas of the curriculum -- homemaking, industrial arts, and guidance -- may also offer excellent opportunities.

Topics and problems to be studied should be carefully selected to fit the maturity and interest of the students. Knowledge of community attitudes and of the needs of the students should be of paramount importance to the person who intends to teach the unit about alcohol problems.

CHAPTER II

WHAT SHOULD WE TEACH ABOUT ALCOHOL?

WHAT SHOULD WE TEACH ABOUT ALCOHOL?

DEVELOPMENTAL TRAITS*

The function of the public schools or of any agency of the state is not to make judgments about the moral correctness or incorrectness of alcohol use. We can, however, point out that drinking by certain individuals under certain conditions is illegal and that use of alcohol can be dangerous.

One of the major goals of teaching is to reinforce self-directedness. Instruction about drinking should be planned and conducted to give the student an opportunity to make an intelligent decision concerning alcohol and its use. To do otherwise could be futile since any real behavior relative to drinking will be decided and carried out independently of the school setting. Teachers are being challenged to educate for personal decision making.

The impact of the complex forces during childhood and adolescence which acts upon learning is known to teachers. A brief review of the more salient developmental traits (physical, psychological, and sociocultural) as they relate to drinking behavior seems appropriate.

DEVELOPMENTAL TRAITS OF 13 - 14 YEAR OLDS

-MIDDLE SCHOOL OR JUNIOR HIGH-

1. Personality adjustment problems increase.
2. Growth patterns contribute to worry and anxiety.
3. An air of sophistication is often assumed to cloak feelings of bewilderment, confusion, and insecurity.
4. Status with peers continues to be more important than adult approval.
5. Great satisfaction is gained from individual accomplishments which are recognized by the group (likely to try to accomplish those things that give some claim to distinction or uniqueness).
6. Codes of behavior may be set up to challenge or imitate adult standards.
7. Social behavior is imitated, especially as portrayed by television, motion pictures, and magazines.

* Adapted from: *Teaching About Beverage Alcohol*, State of Illinois, Department of Public Instruction, p. 40.

8. A strong search for identification and development of a good self-image comes to the fore.

9. Sporadic and sometimes intense interest shows in certain aspects of health. (Some early-teens place special value on physical strength and skills, others on personal attractiveness.)

10. Vacillation occurs between over-confidence in one's ability to take care of one's supposed or anticipated health needs and actual ability to cope with one's specific health "cures."

As boys and girls pass from childhood into early adolescence, they become increasingly engrossed with problems related to the self. This trait, submerged somewhat since the pre-school period of early childhood, now emerges. The rapid physical changes associated with adolescent growth bring with them concomitant emotional changes. Since there is a marked range of individual variation, it is difficult for any young person to find a "norm" by which to gauge his own development. This produces some degree of worry and anxiety.

Within the context of social maturation, decisions about the use or the continued nonuse of alcoholic beverages are made. The act of drinking can symbolize "being grown-up" to many boys and girls of this age. While survey figures suggest that the majority of young people have had a drinking experience by the age of 14, for most this is merely an experiment.

DEVELOPMENTAL TRAITS FOR 15 - 18 YEAR OLDS

-Senior High-

1. Adolescents have sustained and/or are experiencing marked physical growth. They are often clumsy and awkward.

2. Adolescents are concerned and anxious about their roles in the family, their sex role, and their relationships with the opposite sex.

3. Change is perhaps the one characteristic of the adolescent which is constant. Physical, emotional, and social maturation makes 'new people' of them daily.

4. Introspection growing out of the serious over-concern about himself/herself is common. The most frequent question asked by him/her is "Am I normal?" or "Is it normal to feel like I do?"

5. The adolescents exist in a "neither world" where they are no longer children nor yet adults. Periodically, they venture into an adult pattern of behavior, and when things go wrong, retreat into the child's role.

6. The adolescent strives for peer group acceptance which he/she attempts to achieve through conformity of dress, speech, and general behavior.

7. A serious concern about appearance is typical of the adolescent, and blemishes and minor imperfections take on great significance.

The adolescent of senior high school age is difficult to characterize. Some authorities express the opinion that he/she is going through an important "transition period" from childhood to adulthood, but more recent opinion is that youth has a culture uniquely its own. If so, the studies emphasizing the influence of parental drinking practices may have less significance than was originally thought. Becoming a drinker or remaining an abstainer is influenced by parental wishes and practices, but it is also influenced by the nature of the individual adolescent's peer group. Certain peer groups are composed of all abstainers. At the other extreme, teenagers who are regular "heavy" drinkers tend to band together. Other groups will have some drinkers and some non-drinkers and may have no clearcut expectations for members. Those individuals who have a strong sense of their own identity, have positive feelings about their appearance, and have a pleasant relationship with family and community usually can function in many kinds of groups and can drink or not as a matter of relatively free choice. Those who do not have such identity, feelings, and relationships may be much less secure and may feel they have to drink to achieve some recognition.

SUGGESTED GENERAL CONTENT*

The content and scope to be taught about alcohol should include the (1) physiological, (2) psychological, and (3) socio-economic aspects of alcohol use. This may be dealt with in greater or lesser depth depending upon:

1. Level of maturity and sophistication of students.
2. Problems and interests of students and community.
3. Time available to present the unit.
4. Teaching aids, materials and facilities available.

Teachers might select from the following categories of Suggested Topics the basic content which they feel is most important for their students, developing each topic with supporting ideas and materials from the references given later.

Topics are roughly listed in each column to group the simplest, the intermediate, and the more complex. The spaces between groups of items in each column may give some guidance for selection by educational level of the students. Some topics may have multiple aspects and be listed in more than one column (e.g., "Hangover" involves both physiological and psychological considerations.).

As indicated above, the content and scope of the teaching unit should include pertinent topic areas from all three categories (Physiological, Psychological and Socio-economic) in order to present a complete picture.

* Adapted from: *Teaching About Alcohol In Connecticut Schools*, Connecticut State Department of Education and Connecticut State Department of Mental Health , 1970 pp. 8 - 9.

SUGGESTED TOPICS

-Physiological-

Is alcohol a food?
Types of alcohol
Is alcohol a stimulant?
Industrial uses of various alcohols
Alcohol was an accidental discovery
Alcohol as a drug, analgesic, anesthetic
Alcohol as disinfectant
Alcohol as poison (child safety)
Effect on speech
Effect on hearing
Effect on reaction time
Effect on muscular coordination
Effect on vision
Does alcohol quench thirst?
Is drinking fattening?
Alcohol as a dehydrator
Path of alcohol through body
Should athletes drink?

Intoxication
Poisonous alcohols consumed
Types of alcoholic beverages
Alcohol's path through the body
Concentration levels of alcohol in the blood
Organs affected by alcohol
Hangover
Alcohol use vs. Narcotics use (similarities and differences)
Unique risks of teenage drinking
Alcometer
Caloric value
Alcoholic content of different beverages (proof)
Allergy to alcohol
Experiments with animals
Deaths from alcoholism
Deficiency diseases related to excessive drinking
Cirrhosis of liver
Fermentation
Distillation
Absorption vs. digestion
Factors affecting rate of absorption

Alcohol metabolism
Brain damage from alcoholism
Illnesses tied to alcoholism
Alcohol as a medicine
Physiological causation theories of alcoholism
Chemistry of alcoholic beverage manufacture
Alcohol reaction causing substances (treatment of alcoholism)
Alcohol as app tite-arouser
Tolerance to alcohol
Fallacy of "home" cures
Life expectancy of drinkers/alcoholics

-Psychological-

Differing attitudes about alcohol use
Social drinking - excessive drinking - alcoholism
"Chemical comforts," "pill-taking generation"
Reasons why people abstain
Effect on ability to concentrate
Release of inhibitions
Impaired judgment
Reasons why people drink (individual motivations)

Problem drinking
Alcoholism as an illness
Alcoholism statistics (by country, by state)
"Psychological intoxication"
Alcohol use vs. Narcotics use (similarities and differences)
Hangover
Unique risks of teenage drinking
Advertising
Addiction syndrome
Alcoholism and "willpower"
Why people drink excessively
Definitions of alcoholism
Reasons to abstain until age 21
Will heavy drinkers become alcoholics?

Sources of help for the alcoholic
Religious influences as controls
Alcoholism's warning signs
Characteristics of the alcoholic
Psychological causation theories of alcoholism
Treatment of alcoholism
Propaganda -- pro and con
Withdrawal phenomena
Alcoholic's wish to recover
Incarceration or treatment for alcoholics?
Delirium tremens
Ex-alcoholics
Promiscuity
Rehabilitation of alcoholics
Different types of alcoholism
Drinking in films and fiction
Ratio of male to female alcoholics

-Socio-Economic-

Automobile accidents
Pedestrian accidents
Minimum age laws
Laws about drinking and driving
Origins of alcohol use
Problems caused by intoxication
Commonly-held myths about drinking
Public opinion polls
Cultural differences in types of beverages consumed
Biblical references
Church attitudes toward drinking
Politely refusing a drink

Advertising
Careers affected by criminal convictions (for intoxication)
Alcohol consumption rates (by nation, state, town)
Prohibition, then and now
Taxes on alcohol
"Skid Row"
Industry losses
National, state and local expenditures on alcohol
Why adults drink (social forces)
Why some teenagers drink (social forces)
Early temperance movements
Liquor tax wars
Tax dollars spent because of alcohol misuse
Unique risks of teenage drinking
Driving laws
Chemical tests for blood-alcohol level
Insurance aspects of drinking
Hospitalization insurance for alcoholics
Folk-lore
Traffic violations related to alcohol use
Wage losses due to alcohol misuse
Why prohibition was repealed
"Possession" law
Drinking and the family budget

Cultural drinking pattern differences
Cultural alcoholism differences
Criminal behavior
Alcoholism in fiction
Bootlegging
Alcoholism since prohibition
Sociological causation theories of alcoholism
Family disruption in alcoholism
Liquor control agencies
Careers in alcohol field
Host or hostess should offer choice of drinks
Economic value of beverage industry
National, state and local agencies for treatment and/or prevention of alcoholism
Estimation of alcoholism prevalence
Alcoholics Anonymous, Al-Anon, Alateen
Rutgers University Center of Alcohol Studies

-CHAPTER III-

HOW SHOULD WE TEACH ABOUT ALCOHOL?

HOW SHOULD WE TEACH ABOUT ALCOHOL?

What should students be able to do -- and willing to do -- as a direct result of their school experiences? Stating the purpose of education in terms of societal needs, as reflected in observable behavior, has long been an accepted practice of scholars. It is supported by every major curriculum study in the past two decades, irrespective of the subject matter specialty. Instruction about alcohol should not be, and is not, the exception.

This Teacher's Guide for Alcohol Education, intended to assist schools in developing a curriculum structure compatible with the basic philosophy of education in a democracy, is based upon the following assumptions:*

1. The purpose of general education should be to help students realize their fullest potentialities and meet civic responsibilities.

2. For clearest definition, goals of general education should be described in terms of performance or behavior competencies, rather than in terms of knowledge.

3. Students should be expected to know how to use what they know and to have the disposition to do so.

4. The scope of general education should be sufficiently broad to provide youth with the kinds of competencies needed to meet life's demands as a person and as a citizen.

The aim of alcohol education, then, emerging from the broader goals of general education, is to help students develop the ability to make intelligent decisions concerning the use of alcohol in everyday situations.

The basic objectives should be:

1. To present scientifically valid information about the physiological, psychological, and socio-economic effects of alcohol.

2. To provide a classroom environment where young people may examine and clarify their own feelings and attitudes about the use of alcohol in view of the diverse public attitudes and practices regarding drinking.

3. To develop a sense of responsibility in students for their own welfare and that of others in regard to the use of alcohol.

* Based on: Will French, *Behavioral Goals of General Education in High School*, Russell Sage Foundation, 1957, pp. 247.

GENERAL METHODS

Participation in a wide range of activities, discussions rather than lectures, and an atmosphere that will encourage trust and promote mutual understanding should be emphasized. Classes should be student- rather than teacher-centered. The class atmosphere should be one of cooperative learning rather than competitive learning. Small group arrangements are recommended. Assumptions that students should be treated as alcoholics or that they need rehabilitation are not justified by any conditions known at this time. Since problems of alcohol abuse are often symptomatic, it is frequently found that discussions lead to exposure of other problem areas. Referrals to other school staff should be made as quickly as possible when needed.

To effectively communicate with students, educators should understand their own attitudes towards alcohol. Encouraging open discussion and direct interaction with students is essential.

Some general suggestions are:

1. Establish a non-authoritarian, non-threatening environment in the classroom which will allow free flow of information and exchange of ideas and feelings. A non-moralizing, non-dogmatic approach to the subject of alcoholism should be employed.

2. Involve students actively in the analysis of printed and audiovisual materials about alcohol.

3. Provide opportunities for frequent teacher-student contacts on a one-to-one basis and for daily encounters with groups of students. Controversial subjects and current problems should be discussed in classes such as social studies (e.g., war, politics, racial situations, alcoholism, urban problems).

4. Provide a room in school for multi-media experiences to be used to maintain open communication. Students might decorate the room and take part in decisions for its use.

5. Use small group techniques extensively, such as
   A. Interaction through a dialogue
   B. Role playing and behavior rehearsals
   C. Encounter-Use -- only with trained leaders
   D. Sensitivity training -- only to be used by highly qualified teachers
   E. Buzz sessions
   F. Critical incidents.

6. With caution and advance screening, use personnel from treatment and rehabilitation programs, or other resource persons from all levels of related backgrounds. Also, make visits to appropriate institutions and agencies.

7. Instead of using entire films, think in single concept terms. Show a portion and discuss, letting students participate in open discussions on good and bad aspects.

8. Collect newspaper stories about alcohol. Read in class for biases and discuss.

9. At parent or community meetings, try tuning in with the "kids" technique. Leader has a group of students seated on stage with backs to adult audience discussing, frankly, how they feel about school, teachers, etc. After discussion gets underway, the students are turned around.

WORKSHOPS, SEMINARS, AND SHORT INTENSIVE TRAINING SESSIONS

Seminars, workshops, and other intensive training sessions related to alcohol education should be considered for early phases of the program and for later repetition. These can be conducted in stages beginning with training teams from each school within a district. These teams might be followed by workshops within each school to encourage further development of the program. Additional workshops might be conducted periodically for groups such as parents' organizations.

INAPPROPRIATE APPROACHES

Schools throughout the country have reported the ineffectiveness of crash programs, moralizing, and attempts to frighten students:

> An "all school" program is no way to conduct alcohol education. The normal rules of school are suspended, all classes stop, students assemble, people are invited from the community, and one or two films -- often sensational or lurid and more likely to breed alcohol use than to suppress it -- are shown. "This is why it's dangerous to use alcohol" approach is likely to make many teenagers feel that if they haven't tried alcohol they're missing something. To many young people, the old-time rituals of religion, country, family, and school have lost their appeal, and alcohol, drugs, astrology, and youth sub-culture are among the substitutes. Educational emphasis should be on ways of coping with youths' problems rather than on picturing drug users as "depraved" individuals, which has proven to be ineffectual.

Attempts to survey use of alcohol by students often are perceived by students as objects of humor and scorn.

Care should be used in explaining the provisions of law relating to alcohol use.

> Young people delight in pointing out the inconsistencies and hypocrisies in alcohol legislation and enforcement, and while they should be informed of the penalties of alcohol misuse, nothing is to be gained from trying to defend the inconsistencies of alcohol legislation.... With most youths, threats make no impressions. They argue that the adult community commits legal transgressions. Why shouldn't we?

Audio-visual materials used in alcohol education programs are frequently received negatively by students. Therefore, a screening committee, with local students and parents among its members, is advisable.

EFFECTIVE TEACHING METHOD ESSENTIAL

The most promising method at the present time seems to be one that:

A. Establishes aims, goals, purposes
B. Takes into account the level of maturity of the students
C. Is integrated into suitable areas of the existing curriculum
D. Recognizes the psychology of learning
E. Avoids authoritarianism
F. Seeks to establish a friendly, permissive climate in the classroom
G. Makes wide use of supplementary books, periodicals, films, and other audio-visual aids
H. Has the teacher lead and guide, endeavoring always to be objective
I. Allows students to suggest problems, ask questions, and help to determine the course of the study
J. Encourages decision making by students and permits the full participation of all students
K. Has students actively involved in the learning experience.

Such a method is organized around a resource unit. This may be thought of as a reservoir or file of information, resources, ideas, and materials on which each teacher may draw in constructing an actual teaching unit. Such a resource unit is not static; rather, it is a growing and increasing source of materials, ideas, and plans.

Well in advance of any planned instructional program, a conference of teachers should be held. The amount of time to be allotted for the unit, the approaches suitable to the arousal of student interest and the stimulation of student motivation, the selection of resource materials and resource people, and methods of evaluation should be discussed and agreed upon. Duplication and repetition should be avoided.

In addition, teachers who feel that students' interests and needs are basic to effective planning may wish to canvass the class for concerns relevant to the problem area. Such teachers will consider which educational experiences will facilitate the development of the desired behavior patterns. Resource units are most effective when they are the product of group thinking.

The first step in constructing a resource unit is to identify the program, and for this the teacher needs a teaching file. Thus, if a teacher plans to devote time to the study of alcohol problems, she/he might prepare a resource unit as an aid in planning his/her teaching. It is obvious that this will involve consideration of a cluster of problems within a broad area, e.g., the physical and psychological effects of alcohol, drinking and driving, social and legal controls, drinking by minors, alcoholism, and many others. The identification of these problems, and the decision to choose specific ones for inclusion in the resource unit, quite often constitute the first project for participants in a workshop.

As with other teaching units, the teacher will want to select and plan for the most appropriate and effective methods to use.

Effective secondary level programs of guidance and specialized activities - juxtaposed with direct instruction about alcohol - may offer opportunities for the growing personality to learn to use the realities of the environment for personal achievement and satisfactions. These activities may include club work; social and square dances; team and individual sports with carry-over value in after-school, leisure-time activities; the encouragement of camping experiences; creative activities in art, music, handicrafts and hobbies of all types.

Following are descriptions of methods and copies of materials that have been used in actual alcohol education of youth.

SUGGESTED TEACHING TECHNIQUES

I. SOME METHODS DESIGNED TO GIVE INFORMATION, FACTS AND IDEAS -- *

A. Lecture: An organized, verbal presentation of facts, values, experiences, observations, and ideas by the teacher or some other qualified person. The lecture is an efficient way for the teacher to "cover material." For the learner, the lecture is not too effective since the learner is only passively involved in the learning process.

B. Resource Speaker: A lecture or talk by a person uniquely qualified to discuss alcohol use or misuse; speakers may be a university and state health or alcohol educator, a physician involved in alcoholism therapy, members of Alcoholics Anonymous, or a police officer. A resource person can be used in a number of instructive ways. The resource person can make a presentation and then answer questions; she/he can leave after the presentation and let the teacher and students discuss her/his remarks; or the presentation can be in the form of an interview session with the teacher and students. If the teacher knows the resource person she/he can plan a mode of presentation which will use the resource person most effectively. A follow-up by the teacher is important to re-enforce and make sure the objectives were met.

C. Panel Discussion: A group of students and/or resource persons presenting material gained from research or points-of-view to the total class. Panels may be planned or spontaneous; they may be organized for discussion like a symposium or competitively as in a debate. This approach provides good involvement for the participants but is essentially passive for the rest of the class unless at some time during the panel discussion the class is given an opportunity to become involved.

D. Reading and Reporting: Assignments in which students are either given readings from a major list, or permitted to select and read sources of their own choosing, with teacher approval. An oral report to the class or a written report to the teacher (or both) may require that the student differentiate between various kinds of information by organizing it in some unique way. Reading and reporting can be used most effectively if it is combined with other methods such as the panel discussion. The teacher should remember that the aim of reading assignments is to obtain useful information rather than practice reading skills.

E. Films and Filmstrips: Visual presentations which are useful for presenting information, facts, and ideas.

* Adapted from: *Teaching About Beverage Alcohol*, State of Illinois, Office of the Superintendent of Public Instruction, pp. 49 - 50.

F. Visual Transparencies: Visual projections useful for presenting graphs and similar materials. They can be designed by students or by the teacher and produced at school on equipment which is generally available in most schools.

G. Problem-Solving Approach: The teacher should plan a learning situation in which the student will encounter a problem. The student must become aware of the problem, be able to state it, and begin to analyze it. He or she must be able to formulate tentative hypotheses, to test the hypotheses, and to draw conclusions based on the results of these tests. To use this approach, the student must be able to gather data from library research, from her/his own observations, and from controlled experiments.

II. SOME APPROACHES TO ENCOURAGE THE INVOLVEMENT OF THE LEARNER -- *

A. Transparencies: Some transparencies help present information and ideas; others are designed to ask questions and stimulate discussion. Transparencies are useful devices for varying the pace of a lecture. They help the teacher present information in a visual medium which has high attention appeal for students.

B. Films and Filmstrips: Any type of visual display adds another dimension to learning along with listening. The use of films, filmstrips, and visual transparencies, with thoughtful planning, can provide information in a motivating context as well as stimulating thinking, discussion, and questioning.

C. Activity Projects: Particularly helpful to learners who are not essentially verbally oriented. Because they involve some real activity on the part of the learner they tend to stimulate attention. Teachers may serve to initiate activities, but students should be involved in various ways.

EXAMPLES:

1. TOPIC: Varying strengths of alcohol in drinks and beverages

Purpose: To learn how the relative amounts of alcohol in beer, wine, and liquor are determined.

Activities: View a film or collect resource material about brewing, wine making, and distilling. Organize study groups in class to research material about making wine, beer and liquors. Construct with the students a demonstration which indicates the meaning of "proof" as it relates to alcohol content. (If students have learned about the processes involved in making wine, beer or liquor, they should be able to construct their own explanation of the meaning of "proof.")

* Adapted from: *Teaching About Beverage Alcohol*, State of Illinois, Office of the Superintendent of Public Instruction, pp. 50 - 54.

End with a question and answer session or a general discussion regarding the above activities. Be certain, at the end, that the students understand the objective was to see how drinks (e.g., martini, whiskey sour, etc.) and beverages (e.g., beer, wine, liquor, etc.) can range from mild to strong and how their alcoholic content is established.

2. TOPIC: What effects does alcohol have on the body?

Purpose: To observe the effects of alcohol on movement and coordination and to determine the effect of alcohol on tissue.

Activities: Arrange with the Department of Public Safety to view films of persons in various stages of intoxication.

Select films on health which describe the effects of alcohol on the human system.

Arrange with the biology instructor to demonstrate the effects of alcohol on live tissue by taking some animal tissue and exposing it to alcohol.

Arrange for the local chapter of Alcoholics Anonymous to discuss with the class the symptoms of alcoholism.

D. Self-Tests: Present students with questions they must answer, but on which they are not graded. Answers are provided either by the teacher, through discussion or by way of a prepared answer sheet. Self-tests can be based on general information or on specific research or conceptual reports. The assumption behind the self-test is that when a student must decide how to answer a question she/he is more motivated to learn the correct answer and to remember it. Self-tests can be knowledge tests, or they can "shade over" into the realms of attitudes and opinions. Examples given below include all these types plus a form with all possibly correct answers, a test based on a film, and a test based on information gained from becoming acquainted with classmates.

EXAMPLES:

1. Student Opinion Poll

Teachers can construct their own student poll by having the students list from five to ten statements, facts which they know or opinions which they maintain about alcohol. By selecting the best of these statements, you can construct the poll.

Check those statements with which you agree or which you believe to be true.

(F) 1. Alcohol is a stimulant.

(T) 2. Misuse of alcohol is a major problem in the United States.

(T) 3. Most teenagers try alcoholic beverages although it is illegal.

(T) 4. Alcohol is a depressant.

(T) 5. Drinking and driving are not compatable.

(T) 6. Alcoholism is a disease.

(T) 7. One 12 oz. bottle of beer contains about as much alcohol as an ounce of whiskey.

(F) 8. The effect of alcohol on the body is determined only by the amount consumed.

(T) 9. Beverage alcohol is a source of calories.

(F) 10. The size of an individual has no relationship to the effect of alcohol on that person.

(F) 11. Ninety proof whiskey means it contains 90 percent alcohol by volume.

(T) 12. In general, it can be stated that drinking alcohol lowers a person's inhibitions.

(F) 13. Only about half the people of legal age in the United States use beverage alcohol.

(T) 14. Only a small percentage of drinkers become alcoholics.

(T) 15. Certain studies indicate that alcoholism can be hereditary.

An opinion poll such as this could be used as an introduction to the subject area and will give the teacher some idea of the knowledge and misconceptions that the students have and will, therefore, guide her/his approach to the subject In addition, this type of introduction will very likely spur interest in the topic. Many high school students (for whom this is intended) will not know whether some of the statements are false or true. They will be interested to find the answers.

Another way of learning about the state of knowledge among the students would be to have them write down all the facts about alcohol which they think are true. These statements can form the basis for an excellent introductory discussion of alcohol.

2. Pre-Test in the study of alcohol

A teaching unit on alcohol is introduced by the teacher. The teacher explains that in giving this test she/he is seeking information on how much knowledge the students have concerning the use and misuse of alcohol. Place a "T" in front of the true statements, and an "F" in front of the false statements.

(T) 1. Alcohol is a chemical compound of Carbon, Hydrogen and Oxygen.

(F) 2. Alcohol raises body temperature.

(T) 3. The absorption of alcohol usually takes place in the stomach or the small intestines.

(F) 4. The word "proof" designates the percentage of alcohol found in distilled liquors.

(F) 5. One factor which determines the rate of oxidation of alcohol is the sex of the drinker.

(T) 6. A person who cannot control his drinking may be considered by many an alcoholic.

(T) 7. Alcoholism is a disease and should be treated as such.

(F) 8. One drink makes you an alcoholic.

(F) 9. The alcoholic always drinks alone -- never in public.

(T) 10. People who drink to excess usually cannot remember what they have done while under the influence of alcohol.

(T) 11. Emotional stress causes some people to drink.

(T) 12. People who drink may become violent when they are drunk.

(T) 13. Alcohol, even in relatively small amounts, affects one's inhibitions.

(F) 14. Alcoholics are found only in the lower class of society.

(F) 15. All churches consider drinking of any kind to be sinful.

(F) 16. It is considered "bad manners" not to drink at a social gathering if drinks are being served.

(T) 17. Many people drink to feel that they "belong."

(F) 18. A person who is physically active while drinking will never get drunk.

(F) 19. Alcoholic beverages are a good form of food.

(F) 20. People who drink alcoholic beverages do not make good parents.

(T) 21. For many people, eating when they drink may keep them from becoming intoxicated quicker than people who drink on an empty stomach.

(F) 22. Many persons can increase their skill in operating a car after taking a little alcohol.

(T) 23. Various attitudes toward serving and drinking alcoholic beverages are found among different groups in our society.

(F) 24. It is rather easy to distinguish the alcoholic from the rest of the drinking population.

(F) 25. If an intoxicated person drinks several cups of black coffee, he will sober up rather quickly.

(T) 26. Taking tranquilizers or sleeping pills while you still have alcohol in your system can be dangerous, even fatal.

E. Discussion: Verbal interaction between teacher and students and between individual students. Discussion can be initiated by the teacher asking questions in which one answer leads to another question. Good discussion requires that the teacher avoid dominating the communication. Discussion is more difficult in large groups. For this reason, the class may have to be divided into groups of three to eight. The teacher can spend some time with each group to monitor the discussions. If the members of each group are interested in the topic, the discussion will progress without teacher direction.

EXAMPLES:

1. Role Playing in situations involving alcohol

Construct several situations (such as those listed below), and have members of the class act out the situation as a drama. Have the students construct their own situations and, in five minute episodes, have them act out the situations. After each situation, the class should discuss the attitudes and behaviors involved, and decide whether they were realistic or not. Such situations as the following might be used:

a. A mother learns for the first time that her son, a well-respected high school athlete, was picked up by the police for being drunk but was not arrested. The situation begins as the son enters the room where his mother has just heard the news over the phone.

b. A son (or daughter) discovers the place in the closet where his (or her) father hides his bottle. The father is just entering the room as he (or she) closes the closet door.

c. A young girl learns from a friend that a close neighbor died of acute alcoholism. The situation begins as he asks the question, "What caused Mr. J.'s death, Bill?"

d. Three girls in junior high school are alone in the home of one of the girls. The father's liquor cabinet is open. The situation begins as one of the girls says, "Gee, look at all the booze. Let's get some of it out."

2. What would you do?

Use: A discussion on possible actions concerning alcoholic beverages and the situations and reasons involved.

Materials: Three situations (given below)

Procedure: The instructor should pass out the sheet with the three situations.

Use open discussion to determine what Jane, Bob, Jim, and Bill should do, what they will do, and how they will account for their actions.

a. Jane is attending a party where drinks are being served. Jane is 17 and does not believe in drinking. In your opinion, what should Jane's reaction to this party be?

b. Bob is 17 and attending a party at a friend's house. Bob drinks at home but does not usually drink outside of his home. At this party, the host suggests taking some of his parent's liquor. There are no adults present. What will Bob do? What should Bob do?

c. Bob, Jim, and Bill are on a fishing trip. They have camped far from anyone else. All three boys drink occasionally, and Jim has brought some liquor from home. What reasons could be given for any of the boys to refuse to drink? What reasons could be given for drinking?

F. Tape Recordings: Discussion in one class can be recorded and the tape used as a basis for discussion in another. The audio portion of television programs and conversations and speeches from meetings with professionals (e.g., physicians, psychiatrists, psychologists, sociologists, public health officials) and members of Alcoholics Anonymous can be taped and used later in class.

G. Analysis of Advertisements: Another basis for discussion can be selected advertisements for alcoholic beverages printed in magazines and newspapers. These can be collected by the teacher or brought in by students -- or both. An advertisement can be given to a small group for analysis -- particularly in regard to the motivations being encouraged, the perceptions the reader is expected to have, and the values she/he is expected to bring to the reading.

Students should become aware of some of the misleading aspects of advertising. Critical thinking must be developed in an individual concerning all advertising. The need for critical thinking about advertising can easily and interestingly be developed and correlated with the alcoholic beverages.

Alcoholic beverages are advertised in a wide variety of ways. Children have seen, read, and heard these advertisements since a very early age and have formed some opinions about them.

A collection of various alcoholic beverage magazine advertisements can be assembled by the class as a group. Tape recordings or notes taken of audible commercials could be used. Also, personal observations of television commercials could add a great deal to the discussion.

These examples would be subjected to several questions concerning their validity and the motivational factors to which they are appealing.

The following points should be brought out:

1. Validity -- Are the statements reasonable or are they exaggerations?

2. Are statements made which can't be proved?

3. To what motivational factors are the advertisements directed -- manliness, grace, peer acceptance, "everyone else is doing it," identification with desirable status, other?

4. What type of setting is pictured? What does this setting suggest?

5. Any other questions or pertinent ideas the students might have could be discussed.

Examples:

1. Student Activities

   a. Have the student write commercials for or against alcohol.

   b. Get someone from a TV station who knows about ethics of advertising and have him discuss with the students the pro's and con's of advertising liquor on TV and radio.

   c. Have the class do a survey of those publications which accept liquor advertisements and those which do not.

H. Field Trips. Visits made to appropriate facilities which are not available at the school. The motivational value of a field trip is usually worth the time it takes to transport students from the school to another location. Field trips should be coordinated with other instructional activity in the classroom. Some suggested field trips are:

1. Plan a tour of a facility which treats persons with alcoholic problems.

2. Find out what is available at nearby museums which might relate to alcohol, and take your students to visit these relevant exhibits.

3. Plan a visit to the facilities of the temperance organizations in your area.

4. Take a field trip to your local police department or department of public safety, and learn how police handle problems involving alcohol and the law.

5. Take a field trip to one of New York State's breweries or wineries.

I. Laboratory Experiments and Demonstrations. An example of a scientific principle or an experimental proof of an observation. In the field of health, demonstrations and experiments in which students themselves can become involved are very useful in teaching some concept which might otherwise be missed if verbal communication were relied upon entirely. Some demonstrations and experiments which might be done are as follows:

1. Determine the effects of alcohol on live tissue by placing some on animal tissue and observing the effect under a microscope.

2. In cooperation with the chemistry teacher, develop a series of experiments involving alcohol which students can do as part of their chemistry laboratory experiments.

III. VALUE CLARIFICATION TEACHING STRATEGIES.

The alcohol problem in our schools can be approached as a "people problem." This approach gives consideration to student's feelings, values, interests, and actions. Students shall be actively involved in responsible decision-making activities for success in the over-all learning process.

The concept of building values can become complex and puzzling. There are differences of opinions as to whether values can or should be developed. Teachers should take a good look at what education contributes to value development. Education has always tended to emphasize knowledge and information accumulation.

There has been a tendency to neglect concern for the student as an individual involved in the educative process. Educators should recognize that understanding and appreciation of another person's values enhance the chance for transfer of her/his knowledge into behavior.

Understanding and appreciating another's values does not mean accepting the values for one's own life nor does it mean condoning misconduct. It does require one as a teacher to recognize that she/he owes the same respect to the students who have value systems different from her/his own as she/he does to those whose values she/he shares. A person's behavior is motivated by a value system that belongs to her/him alone; therefore, all students are individuals who have value systems that determine the reasons they behave in varying ways.

Decision-making is a process that allows a person to make a selection from two or more possible choices. If choices are to be made that will guide one's life, the person must be able to make a free choice. Coercion has no place in assisting decision-making. You can help your students best by:

1. Unconditionally accepting the students and their problems.
2. Not giving advice; help the student to clarify questions and comments that concern her/him.
3. Looking at the issue from the student's point of value.

While techniques of problem solving are important in the process of decision-making, additional limitations are important to consider:

1. The individual makes the decision unique.
2. One's capabilities limit his choices.
3. Decisions are limited by what one is willing to do.
4. Lack of information limits one's choices.

Therefore, in addition to the student's being able to clarify his/her values, he/she needs ample information about herself/himself and his/her surroundings in order to develop the alternatives in personal decision-making. By exploring the possible outcomes of their alternatives and how they affect their value system, students learn to be systematic in their decision-making. This enhances their opportunities for making realistic decisions for themselves.

Some of the current approaches to alcohol education still deal with scare techniques and/or a straight pharmaceutical approach. Both of these techniques have been a failure.

In alcohol abuse education specifically, experience indicates that value building and factual knowledge do not complete the task of alcohol abuse prevention. Smoking physicians and overweight nutritionists are just two examples that indicate values and facts do not necessarily change health behavior. There must be a realistic alternative for each individual.

The specific aims of a values clarification approach are that:

1. It helps people to be more purposeful. People learn to focus in on those specific purposes in life that they hope to achieve.

2. It helps people become more productive. With a focus in mind as to what a person hopes to achieve in life her/his outlook is one of optimism and a sense of accomplishment.

3. It helps people sharpen their critical thinking.

4. It helps people have better relations with each other. People are more sure of themselves and exhibit stronger commitments to each other.

Values clarification is not a panacea. It is simply another technique of teaching in the area of alcohol education. Used wisely, this technique can provide new insights into the problem of alcohol use and abuse.

Following you will find some examples to help you in formulating plans for a values approach to the teaching of alcohol education.*

* Adapted from: *Drug Education in the Secondary School, Approaching the Problem Through Value-Clarification Teaching Strategies*, Nebraska Department of Education, 1974.

A. VALUE RANKING

As students go through the process of searching for, and clarifying their values, it is often beneficial to "nudge" them into a choice. This can be facilitated through the activity of ranking.

Although the procedure of ranking appears to be in conflict with the first principle of value theory (choosing freely), there are indications that it facilitates critical thinking in relation to other value levels (choosing: from alternatives, and choosing after thoughtful reflection of the consequences of each alternative).

Small and large group discussions which should follow a ranking session provide opportunities for students to experience the second step of prizing (willingness to publicly affirm your choice).

The strategy of value ranking allows students the opportunity to look at priorities, the things they feel are important to them at a point in their lives. Value ranking helps the students place value choices into perspective with the available alternatives.

When using a value ranking list, the students should rank their own choices from their own set of priorities, which are obviously based upon what they know to be true and reasonable for their own lives. No absolute right or wrong rankings exist for everyone, only for each individual. In essence, what the students rank are not the three to five items of each statement, but rather life values based on previous knowledge, experience, fears, superstitions, etc.

After all students have completed ranking the set of items, they should be encouraged to share their rankings in either small or large groups. Acceptance of all answers should be stressed. Individually, the students have their own rationale for their rank ordering, and this rationale will hopefully be shared with others upon further questioning.

A good discussion lead-in question by the facilitator (teacher) is: "Does anyone want to ask someone about his/her rationale for a particular ranking?" During the ensuing discussion, the focus of all questions should be clarifying in nature, not judgmental. Stress this point with the students! Questions should be based on the seven step process of valuing.

The facilitator (teacher) can and should join in the ranking. Facilitators should hold back sharing their rankings, however, until after the students wishing to share their rankings have had the opportunity to do so. Otherwise, students who have not as yet thought through the issue for themselves may be swayed by the "opinion leader role" that the traditional teacher generally possesses. Do not insist that all students must share their rankings. Sharing should be voluntary.

The objectives of the facilitator (teacher) are to:

1. assist students to identify their choices that may involve values;
2. encourage students to elicit their responses, and
3. challenge students to think through their value choices by "nudging" them with clarifying questions.

The attached list is an example of the types of items that can be used in a value ranking strategy. Although this list relates to drugs, any topic area can be focused upon for the strategy of value ranking. Experiment in developing your own set of value ranking items. Ask the students to submit items which focus upon their concerns.

Directions

After reading and thinking about the following items, indicate your thoughts or feelings about the five choices by ranking each choice with a 1, 2, 3, 4, or 5.

Example:

Look at the first ranking item. If, after considering the five choices, you felt that cigarettes were most harmful to your physical health, you would rank cigarettes as number 1. If you felt that caffeine was the least harmful of the five choices, you would rank caffeine number 5. The remaining choices would be ranked 2, 3, or 4, depending upon your feelings about them.

1. Rank from 1 to 5 the drugs which you feel are the most harmful to your physical health.

_____ cigarettes
_____ marijuana
_____ alcohol
_____ aspirins
_____ caffeine

2. Rerank from 1 to 5 the drugs which you feel are the most harmful to your mental/emotional health. If there is a difference in the way you ranked #1 and #2, explain.

_____ cigarettes
_____ marijuana
_____ alcohol
_____ aspirins
_____ caffeine

Explain difference_____
_____
_____
_____

3. Rerank from 1 to 5 the drugs which you feel would give you the most satisfaction/pleasure when used.

_____ cigarettes
_____ marijuana
_____ alcohol
_____ aspirins
_____ caffeine

4. Rank from 1 to 5 the person you feel is most in need of help.

_____ speed freak
_____ alcoholic
_____ pot head
_____ smoker
_____ heroin addict

5. Rank from 1 to 5 which pattern of use you feel is the most harmful to your health over long periods of continual use.

_____ 14 aspirins/week
_____ 5 cups of coffee/day
_____ pot 3 times/week
_____ 15 cigarettes/day
_____ 9 beers/week

6. Caffeine is a drug ingested in many forms. Rank from 1 to 5 the way you most commonly use caffeine.

_____ coffee
_____ tea
_____ cola drinks
_____ chocolate
_____ aspirin compounds/headache remedies

7. Rank from 1 to 5 why you think most people overuse or abuse drugs.

_____ conditioning to a drug culture
_____ escape
_____ ignorance
_____ peer pressure
_____ thrill seeking

8. Rank from 1 to 5 those persons you would most like legal action taken against.

_____ alcoholic
_____ person who is intoxicated while driving an automobile
_____ drug addict
_____ illegal drug importer/manufacturer
_____ M.D.'s who prescribe drugs unnecessarily

9. Suppose you know a drug pusher. Rank from 1 to 5 how you feel you would react.

_____ keep the information to yourself
_____ notify legal authorities
_____ tell your friends
_____ tell your parents
_____ blackmail him

10. Rank from 1 to 5 your greatest source of alcohol education up to the present time.

_____ literature
_____ school
_____ home and church
_____ friends and peers
_____ electronic mass media

11. Rank from 1 to 5 the commercial advertisements you find most despicable.

_____ aspirin/pain relievers
_____ sleeping products
_____ weight control products
_____ antacids
_____ cough relief/suppressant products

12. Rerank from 1 to 5 the frequency you use the products in #11. Is there a relationship between your rankings of #11 and #12?

_____ aspirin/pain relievers
_____ sleeping products
_____ weight control products
_____ antacids
_____ cough relief/suppressant products

B. WEEKLY REACTION SHEET

Through the use of value-clarification teaching strategies, teachers can encourage their students to look at their lives in a nonjudgmental way. A useful strategy for accomplishing this is the use of weekly reaction sheets. Such reaction sheets can encourage students to look at their lives in a systematic, but non-moralizing way. The use of reaction sheets focuses upon the first level of PRIZING: being happy with your choice.

The process of using a weekly reaction sheet is fairly simple. Once a week (usually on Friday), each student completes a weekly reaction sheet which asks several clarifying questions. Students complete a reaction sheet each week for approximately six to eight weeks. Prepare a file for each student, so he/she will be able to refer to all of the reaction sheets at the end of the six to eight week period, at which time the students will evaluate how they have reacted over the span of the activity.

A weekly review of the reaction sheets by the teacher allows for a better understanding of the student's feelings, attitudes, and values. Three key issues must be kept in mind as the reaction sheets are reviewed:

1. Every effort should be made to be open-minded, accepting and tolerant, since this is the atmosphere in which values are more likely to mature.

2. The teacher should not judge the quality of an individual's reaction sheet, as this may cause her/him to look to the teacher rather than herself/himself for approval of her/his actions.

3. The information on the reaction sheets must be kept confidential. Building trust is an important factor in value-clarification.

After you have collected the reaction sheets for the six to eight week period, return them to the students. Have the students review all of their reaction sheets. After evaluating what they have reported over the six to eight week period, have them complete the Reaction Sheet Summary. This further focuses upon PRIZING: (P1) being happy with your choice.

Although the use of both reaction sheets provides the students with opportunities for clarifying their feelings, attitudes and values, one final phase will move them into a higher value step of PRIZING: (P2) willingness to publicly affirm your choice.

This phase can be accomplished through small and large group discussions in which the students are encouraged to share with others what they have discovered about themselves through reviewing all of their weekly reaction sheets. This phase should be on a voluntary basis only.

_____
(NAME)

_____
(DATE)

The purpose of this reaction sheet is to allow you to react in writing to things that have occurred during the past week. Anything you put on the sheet will be kept in strict confidence.

You will be asked to complete a reaction sheet once a week for approximately six to eight weeks. At the end of this period, all of the reaction sheets will be returned to you. At that time you will be asked to review the reaction sheets, evaluate what you have reported, and react to it.

After completion of the Reaction Sheet Review, you will be invited to join in a large or small group discussion. Joining a group will be voluntary.

In writing, respond to the following questions:

1. What was the highpoint of your week?

2. With whom were you in emphatic agreement or disagreement this week?

3. Do you have any gripes about your educational program?

4. Did you work on any plans this week for some future adventure you are planning to have?

5. In what way could the week have been better?

6. Did you make any changes in your life this week?

7. What did you procrastinate about this week? Do you know?

8. Did you act on any of your values this week?

REACTION SHEET SUMMARY

Review the Weekly Reaction Sheets you have completed during the past six to eight weeks; then respond in writing, to the following questions:

1. What was the highpoint of the six to eight week period? Was there more than one highpoint? If so, were they similar? Were the highpoints different week by week? Explain further.

2. Did a pattern occur in relation to people you were in agreement or disagreement with? Was it usually the same person or different persons? Were the agreements or disagreements of similar nature? Explain further.

3. What was your most common educational gripe? Were there several different types of gripes? Were they personality-type gripes? Explain further.

4. Have you reported any effort to plan for future activities? Were they short range or long range plans? Explain further.

5. In what ways could the period have been better for you?

6. Did you make any changes in your life during the period? Explain further.

7. Did you procrastinate during the period? How many times? Was there a pattern to the procrastination?

8. How many values did you act upon during the period? What were the specific actions? Did any of your values change?

C. WEEKLY VALUES CARDS

This value-clarification strategy is similar to Weekly Reaction Sheets. The major difference is that it is less structured as to the type of information requested. The strategy allows students to utilize all three value steps of CHOOSING: freely; from alternatives; and after thoughtful reflection of the consequences of each alternative. It also allows practice in the first value step of PRIZING: Being happy with your choice.

A follow-up activity of large or small group discussion after three or four months of completing the weekly value cards offers students opportunities for experiencing the second value step of PRIZING: willingness to publicly affirm your choice.

As a ticket of admission to the class each Monday, students are asked to turn in value cards. These are 4x6 cards upon which each student has written something about which she/he cares deeply, feels passionately, or values highly. The thoughts expressed on the cards may be any length, style or form. In the upper left hand corner, have the students respond with a "yes" or "no" to the following:

"This value card can be shared with the class. My name will remain anonymous."

The value cards are not to be graded or even corrected for spelling or grammar. (If sharing verbally with the class, the teacher might want to edit for grammar, but not for point of view. Remember to keep author anonymous.) Any topic is suitable for the cards.

From time to time, a few selected value cards are read to the class -- the authors remain anonymous. (Remember, some students may indicate that they do not wish to share their thoughts. Respect this choice.) Comments about the cards are usually lively and quite direct. The unidentified author frequently takes part in the verbal exchange. This process allows students to discuss their values with their peers. Students are exposed to a wide range of alternative thoughts as new ideas are expressed by others their age.

After collecting the value cards for three or four months, return them to the students. Allow the students time to review the thoughts they expressed. Pose a series of summary questions, in which the students respond in writing. Such questions should explore the various patterns of expressed values, and consider the amount of student commitment to them. The relationship between actions and values should be explored. The evaluation of one's own value cards advances the clarification process as does the act of writing them each week.

After the students have summarized their value cards, provide small and large group discussion areas. The discussion activity focuses upon the value step of PRIZING: Willingness to publicly affirm your choice. The discussion groups should be on a voluntary basis only.

D. DECISION-MAKING

Teaching strategies which allow students to become actively involved are a very important part of effective drug education programs. A strategy that provides for very active student involvement is the decision-making process.

By utilizing the decision-making process, teachers are provided with a comprehensive approach for working with students in such a manner as to effect their attitudes and values around the issue of drugs as well as a whole host of other health-related issues.

The rationale for utilizing the decision-making process as a viable teaching strategy can be illustrated by the following points:

1. As individuals, it is necessary for students to learn the skills which they will need in order to make decisions that will prove to better their lives.

2. Often, the action of making decisions within a group situation educates students in the questions they must ask of themselves and the ways in which a decision is actually made.

3. Effective decision-making by a group on the basis of consensus is both realistic and possible, although it is not always easy.

There are many instances where, due to the pressure of time, the type of decision or the area of responsibility, an individual and not a group may most appropriately make a decision. There are, however, certain conditions that make decision-making by a group the most appropriate means of solving a particular problem:

1. When the group is directly affected by the decision.

2. When various points of view and opinions are needed.

3. When the group must carry out the decision.

4. When the group has learned to work effectively together.

5. When the leadership functions are shared.

6. When decision-making procedures appropriate to the problems are used.

The decision-making process involves five basic steps which a group can take in arriving at a decision with some assurance that it represents the mind of the group as a whole and that it will be acted upon. It is useful to be aware that there are things that may occur which, (1) may help completion of the step, (2) may block completion of the step, and (3) may cause omission of the step. Following is a description of each of the decision-making steps, the things that may help, block, or cause omission of the step are illustrated.

STEP 1 -- DEFINING THE PROBLEM

The process of defining the problem, sharpening the focus so that the issue is clear: internalizing its various implications, clarifying it, and elaborating on it.

Things that help completion: a problem census, small groups, general discussion.

Things that block completion: the assumption that the problem is clear, over-abstractions of the problem, the assumption that the problem is relevant.

Things which may cause omission of the step: a standing committee that is reappointed year after year but that never reviews its purpose.

STEP 2 -- SUGGESTING ALTERNATIVE SOLUTIONS

The process of getting ideas on the various alternative solutions to the problem from all the group members.

Things that help completion: brainstorming, additional data, subgroup work, a climate of freedom, periods of silence.

Things that block completion: lack of data, lack of experience, group size, member threat, over-formality, inadequate maintenance function, polarizing on a particular solution.

Things which may cause omission of the step: a chairperson who limits a group to working on the implications of a solution the chairperson has already decided upon.

STEP 3 -- TESTING THE ALTERNATIVES

The process of examining the alternatives in the light of all available data: previous experience, possible consequences, relevance to the problem, and members' attitudes.

Things that help completion: careful examination of alternatives by subgroups, feedback of findings by subgroups, recommendations of subgroups, a climate of freedom to share ideas, large group discussion of alternatives.

Things that block completion: lack of data, premature voting, over-protection of ideas by individual members, inadequate maintenance functions.

Things which may cause omission of the step: the prestige or influence of the chairperson or some other member which prevents the group from putting that person's alternative under real scrutiny.

STEP 4 -- SELECTING AN ALTERNATIVE

The process of reaching a decision by choosing one of the alternatives, or a combination of alternatives, that will provide a solution to the problem defined.

Things that help completion: expression of feelings by all members, maintenance of an agenda for future reference, summarizing of discussion, testing for consensus.

Things that block completion: inadequate testing, lack of clarity regarding the problem; premature voting, no testing for consensus, identification of ideas with persons.

Things which may cause omission of the step: a committee that goes on and on -- exploring the if's, and's and but's, ad infinitum -- but never arrives at a decision.

STEP 5 -- PLANNING FOR ACTION

The process of making detailed plans for carrying out the decision by examining the implications of the choice and testing the relevance of proposed action. It should be noted that the planning step sometimes results in re-thinking the decision and returning to one or another prior step in the decision-making process.

Things that help completion: feedback, observer reports, evaluation, post meeting reaction reports, review of data, a climate of freedom.

Things that block completion: failure to reach consensus, failure to explore adequately the implications of proposed action, assignment of total responsibility for implementation to one person.

Things that may cause omission of the step: failure to assign responsibility for implementation of the decision once it has been made.

Selecting a Problem

Selecting appropriate problems for the decision-making process is a key ingredient to this strategy. The problem should have some relevance to the students, otherwise students will percieve the strategy as just "busy work."

Soliciting possible problems from the students should provide a wide variety of problems which may be utilized for the strategy. The students should play an active part in selecting the problems to focus on in the decision-making process.

Suggested Problems

1. Over population of the world
2. Legalizing drugs (marijuana, heroin, LSD, cocaine)
3. Air and water pollution
4. Determining penalties for possession, use, and/or selling of illegal drugs (marijuana, heroin, LSD, cocaine)
5. Determining penalties for possession, use and/or illegally selling legal drugs (minors and tobacco or alcohol, using another person's prescription for medicines such as sleeping pills)
6. World-wide food shortage.

E. REASONS FOR ALCOHOL USE

WHY DO PEOPLE USE ALCOHOL?

We have developed, in our society, an ethic for relying upon the aid of drug-like substances to assist us in a variety of situations. The drugs we rely upon range from coffee, tobacco and alcohol to marijuana, LSD, morphine, etc

List as many reasons as you can think of that people in our society give for using alcohol.

Example

1. To maintain a Physiological Function of the body
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

DO YOUTH AND ADULTS USE ALCOHOL FOR DIFFERENT REASONS?

Examine your list of reasons people give for using alcohol, and rate each reason on the following scale in terms of the frequency with which you believe that reason applies to youth using alcohol.

Seldom Frequent

1. ——————————
2. ——————————
3. ——————————
4. ——————————
5. ——————————
6. ——————————
7. ——————————
8. ——————————
9. ——————————
10. ——————————
11. ——————————
12. ——————————

Using the same scale and a different kind of color or marking system, rate each reason why way you believe it applies to adults using alcohol.

Are there major differences or similarities between the ratings for youth and adults?

Discuss the major differences or similarities between the reasons adults and youths use alcohol. Try to explain them.

WHAT IS THE MOST COMMON FEATURE AMONG THE REASONS PEOPLE USE ALCOHOL?

Examine your list of reasons people use alcohol. Select the phrase from the following list that you believe is common to all or nearly all of the reasons you list.

1. To gain acceptance from others.

2. Because they hear so much about it.

3. To alter the way a person feels about himself under a specific set of circumstances.

4. To get even with other people.

5. To do what everybody else is doing.

Discuss the significance of the phrase you selected in terms of alternative ways to achieve the same result.

F. YES - NO - MAYBE?

Objective: To provide students with opportunities to identify and experience methods of saying "no" gracefully.

Principle: Peer pressure is a powerful force which often causes internal value-conflicts within the individual. People often "go along with the crowd" because they are afraid or unable to say "no."

Learning Activities:

1. Hold small and large group discussions on peer pressure, going along with the crowd and saying "no." Have students consider the timelessness and importance of being able to say "no" on certain occasions.

2. Have students develop role playing situations in which people are confronted by a yes-no situation.

   Examples:

   a. A friend asks to copy your school assignment or to help cheat on a test.

   b. Someone in your group of friends suggests that the group should "borrow" some bicycles from in front of the school and go for a ride during the lunch hour.

   c. You stop by your best friend's house after school. Your friend's parents are not at home. Your friend offers you (1) a cigarette, (2) a can of beer, or (3) one of his mother's "diet" pills.

SUMMARY OF INSTRUCTIONAL TECHNIQUES PRESENTED ABOVE

The examples of instructional techniques which have been presented above do not exhaust, by any means, the range of possibilities which are available to the teacher. Instructional techniques and methods are best if they meet the following assumptions:

1. Any instructional technique which involves the students themselves in the activities of learning is better than a technique which is entirely didactic.

2. Learning situations which take advantage of the natural interests of the learner are preferred to situations which are outside the range of interests of the student age receiving instruction.

3. The purpose of education about alcohol is to help students analyze their own attitudes and values concerning drinking. Instructional situations which give the student opportunities to discuss and react to many different attitudes and values are to be preferred to instruction which presents facts without opportunities for interpretation.

4. Education about alcohol should be approached as a topic which can draw from the resources of all the disciplines offered by the school. Inter-departmental and inter-disciplinary efforts in the development of a program of education about alcohol are preferred to instruction which is isolated and not made relevant to the rest of the students' education.

-CHAPTER IV-

SUPPLEMENTARY CONTENT INFORMATION FOR THE TEACHER

SUPPLEMENTARY CONTENT INFORMATION FOR THE TEACHER

ALCOHOL IN HISTORY*

The history of this subject begins with the fact, already noted, that alcohol preceded humans on earth and it was discovered, almost certainly, by accident. Tangible evidence exists that alcoholic beverage existed as far back as the Paleolithic age (the stone age) , a million or more years ago. Primitive people thought it something mysterious and treated it with a great deal more respect than do modern people. Primitive people regarded it as a gift from the gods and, accordingly, referred to it as spirits, a reference which persists today.

Actually, some early use of alcoholic beverages was most practical, not at all for pure pleasure. There were few ways to preserve food and the water was sometimes impure. Humanity soon realized that grape juice, for instance, spoiled quickly but that fermented juice, the first wine, would keep.

People also observed that those who drank water might fall ill, whereas those who drank fermented liquors did not. Obviously, this was not because the alcoholic beverage was specifically healthgiving, but because the water was impure. There was no science of bacteriology, but the observation was astute.

Ancient tribespeople consumed alcoholic beverages as they danced around their campfires, and one ancient myth even traces alcohol back to the time of creation. Even then, it says, the forces of good and evil challenged each other for possession of the earth. Good triumphed over evil (probably, as Mammy Yokum of Dogpatch always says, "because it's so much nicer"), but not without sacrifice. Good guys died in the cause of victory. And where they fell, the myth continues, vineyards began to sprout. The fruit of the vines yielded the blood of the grape which imparted to those who drank it a certain spiritual quality.

Humanity's earliest history, recorded or otherwise, unearthed by modern archaeologists, refers frequently to alcoholic beverages.

One account of the flood, unearthed at Nineveh (in present-day Iraq) tells us that beer, oil, and wine were among the provisions that Noah took aboard the ark, and it is highly unlikely that he fed either beer or wine to his pairs of animals. There is even a biblical reference to alcohol which tells us that Noah overindulged in his supply of wine with the customary results.

* Portions of this section were adapted from: *Teaching About Beverage Alcohol*, State of Illinois, Department of Public Instruction.

The Babylonians and Egyptians brewed beer more than 6000 years ago. The Egyptians passed the skill on to the Aegeans, and it spread throughout the ancient world to Greece, Rome, and other Mediterranean countries. The ancient Chinese, Japanese, and Britons also made beer and ale.

The first recorded evidence of alcohol in an ancient culture appeared on Babylonian tablets. The ruins of a winery estimated to be 2600 years old have recently been unearthed near Jerusalem. The early scholars -- Plato, Socrates, Aristotle -- are known to have been wine drinkers, and vineyards were important to early Roman agriculture. After their conquest of Gaul, the Romans introduced viniculture to that country (now France).

The use of wines was commonplace in early biblical times, and wine was still considered one of God's gifts. Distillation was known a century before the birth of Christ although it was not much practiced, wine being the popular beverage of the time. (History seems to support the viewpoint that problems relating to the consumption of alcoholic beverages were compounded after the introduction of distilled beverages.)

Wine consumption was heavy during the middle ages. Abstinence was practiced by a few ascetic minorities as a step toward Christian perfection, but drinking was generally accepted although drunkenness was frowned upon.

The clergy itself assisted in establishing the prevailing attitudes toward drinking and, in fact, the strongest wines even took on a churchly sound when they were called "theologicum."

During the middle ages, to some extent, abstinence was regarded as unacceptable since the view persisted that wine was a God-given gift. It was not only a basic part of religious ritual, but it was an accepted remedy for many illnesses. In both the Catholic church of the time and the early Protestant sects, abstinence continued to be the badge of the dissenter.

As medieval monks became keepers and guardians of the wine, Europe became the wine capital of the world, a distinction it has never really relinquished. Many of the refinements in the science of fermentation took place in the monasteries.

Alcoholic beverages came to the new world with the earliest colonists. If you visit the reconstructed Mayflower at Plymouth, Mass., guides will tell you that one reason the Pilgrims settled on that unfriendly coast was because their supply of beer had run short. They simply had to land to brew a fresh supply.

John Alden's contribution to that 1620 expedition was not merely to seek Priscilla Mullins' hand for Myles Standish. Alden was not even a Pilgrim, but was hired on as a cooper, an expert at repairing barrels, and presumably he was of great value when it came to keeping the beer supply safe within its containers.

But the various colonizing groups brought varying attitudes toward alcohol which became characteristic of the lands they colonized. Some were abstainers who brought no liquor with them but did bring anti-liquor biases. Others enjoyed their indulgence and brought along their own supplies of drink. So the seeds of uncertainty on this issue were planted early in the history of the new world.

Methodists, Quakers, and Calvinists were early proponents of temperance, but Puritan clergymen, Dutch Merchants, and Virginia planters agreed that alcohol was not only useful, but necessary. They were quick to condemn excessive drinking as an abuse of one of nature's wholesome gifts and saw the excesses as a violation of the divine will.

Opinions varied from community to community. But the record shows that in some areas there was official concern that an adequate supply of beverage alcohol be maintained.

The North American Indians seem to have been one of the few peoples of the world who had never learned to make alcoholic beverages. But the pioneers were quick to bring that particular blessing of civilization to the natives of the lands they settled.

Some of the early legislation enacted in the colonies was designed to encourage inn-keeping, brewing, and distilling. Sale of beverages was intimately associated with the needs and desires of travelers, since alcohol was considered an integral part of the daily diet.

Indeed, taverns enjoyed a unique prestige in colonial times. In 1656, Puritan authorities pushed through a law in Massachusetts, making a town liable to a fine for not providing a public tavern. This was in part because the colonists believed public drinking was likely to be more moderate than private drinking.

But by the early 1700's, opposition to drinking was being voiced by the vigorous outspoken Cotton Mather. He regarded it as a practice inclined to weaken the moral fiber of the younger generation, as a license for loose-living. This was only part of a general campaign by the Puritan clergy to retain a tighter grip on members of their churches. In his campaign to suppress drunkenness, revelling, and idleness, Mather directed a great deal of his wrath at inns and taverns, despite their somewhat privileged status.

Independence was scarcely won when it was put to the test by the Whiskey Rebellion of 1794. Farmers had found it practical to turn much of their corn and rye into whiskey which was both profitable and easier to ship to market than the bulky grains. In 1791 a federal tax was levied on all whiskey makers, and government agents were sent to collect it. Pennsylvania farmers, particularly, preferred fighting to paying until finally President George Washington sent troops to stop the rebellion.

This was an early test of the federal power to enforce federal law but of equal importance to this study, it revealed dramatically the importance and acceptance of a relatively new craft, whiskey distillation, in the infant country.

The seriousness of that rebellion indicated the popular support of the industry.

It probably is inaccurate to imply general acceptance of alcoholic beverage in the young country because the rugged individualism of the early Americans was such that general agreement on anything was unlikely. However, the prevailing mood seems to have been that weddings, christenings, wakes, and commencements were proper occasions for drinking.

Drunkenness was tolerated; drinking was respectable, and alcoholic beverages were sold in stores as well as in taverns. There was no organized liquor industry as such, with giant breweries and distilleries, but the many small privately operated stills met the demand.

This was the climate when a broader reaction began in the early 1800's. It was in 1808 that the first temperance society was formed. No scientific study had been directed at the causes of alcoholism but with religious leaders and physicians providing leadership, and with anti-drinking programs built around the issues of morality and health, many temperance societies emerged following organization of the first one in 1808.

A class of complete abstainers came into being. A substantial portion of the society began to question the value of alcoholic beverages and the tavern itself. Were they necessary, skeptics asked, or were they sources of an intolerable burden?

Early skeptics promoted moderation, but that gave way to temperance and ultimately, to a surge toward abstinence. Their first efforts focused on distilled liquors but gradually expanded to include wine and beer as well.

This was only the beginning of the intense polarization of attitudes, permissive and restrictive, which was to culminate in the legal prohibition of this century.

While a variety of abstinence and temperance movements broadened their base of support as the nineteenth century wore on, so did drinking consolidate its position.

In fact, the Industrial Revolution in this country gave a new dignity to the saloon, which became a social institution of some small importance. As rural residents trekked to the cities, giving impetus to urban development, the saloon became a sort of workingman's club, with an all-male patronage. It was more than a place for drinking. It was a place for small talk and great debate, a place for the hard working men of the day to pass their time.

But equally dynamic was the anti-drinking movement. The Washingtonian Movement created in 1840 ultimately saw several million persons take the Washingtonian pledge of abstinence. It projected the moral side of inebriation into public thought. It created the new concept of hospitals for the cure of inebriates unable to keep their pledge. It advocated kindness for drunkards. It declined only when the general temperance movement embraced legal means of suppressing drinking and abandoned moral persuasion.

These movements had no shortage of financial aid from their devoted supporters. They were well organized, and their demonstrations, marches, and parades were commonplace. They were able to bring enough pressure to bear on politicians to win many over to their camp. (For instance. Abraham Lincoln was convinced that prohibition by state action was desirable.) It was in 1851 that Maine became the first state to enact a prohibition law. Twelve other states passed similar laws in that period, but all were repealed or declared unconstitutional except Maine's.

The Civil War, capturing as it did the full attention of all Americans, slowed down the march of temperance reform. It created an atmosphere which made liquor generally more desirable, not less. As a result, the liquor business expanded greatly during, and just after, the Civil War.

The tempo of temperance picked up rapidly once the Civil War was over. Frustrated that neither Republicans nor Democrats would consider prohibition in their platforms, proponents organized the Prohibition Party in 1869.

In 1874 the Women's Christian Temperance Union was organized and then in 1893, the Anti-Saloon League. This latter gave way to the National Temperance League of America in 1895. It was during the 1890's that Carry A. Nation chopped her way into American folklore by smashing every saloon in sight with her trusty hatchet.

During those years the per capita consumption of liquor was increasing, strangely enough, side by side with the concept that freedom from the drinking tradition was the normal way of life. By the turn of the century, Kansas, North Dakota, New Hampshire, and Vermont had joined Maine as dry states. Still other states had enacted local option laws which permitted individual communities to prohibit alcoholic beverage sales within their boundaries.

The non-drinking culture remained in the minority, but it was active and growing. It hoped to outlaw the saloon and educate the public to what it considered a new moral level to discourage drinking and eliminate drunkenness. No longer was temperance enough. The magic word was abstinence.

With all this behind the movement, the final drive for national prohibition was launched in 1907 when Georgia went dry, and state after state fell in line. Then it happened when, in 1917, the movement which might be traced to Cotton Mather 200 years earlier suddenly had the upper hand, and the 18th Amendment to the Constitution was submitted to Congress.

Twenty-five states already were dry, and thousands of communities were dry by local option. Sixty-one percent of the nation's population lived under prohibition laws. Industry, labor, farmers, and other organized groups climbed aboard the bandwagon to support prohibition. This time the war-time climate of World War I did not delay the movement.

On January 16, 1920, the 18th Amendment went into effect, and the manufacture, sale, or transportation of intoxicating liquors in the United States was prohibited.

But prohibition failed. A nation which had never been able to make up its collective mind whether to drink or not to drink simply couldn't live with the law. Perhaps it is oversimplification to say that it was an unenforceable law, but the fact is it did not have the widespread support any law must have.

Once again it became a political issue with "wets" vying with "drys" over whether to retain or repeal the amendment. Less than three weeks after Franklin Delano Roosevelt became president in 1933, Congress repealed the Volstead Act of 1919 which had enforced the 18th Amendment, and the manufacture and sale of wine and beer were legalized once more.

Then came Amendment 21 which repealed Amendment 18. By December 5, 1933, less than a year after Roosevelt's inauguration, the necessary 36 states had voted ratification, and national prohibition was no more. This took the matter out of federal hands, returning it to the states.

By 1936 all but eight states had legalized the manufacture and sale of liquors. By 1966, all states permitted the sale under various local regulations. While many localities continued to ban the sale, the pre-Prohibition status quo was restored, and the "wets" had the upper hand again.

It is likely that anti-liquor sentiment is virtually as strong since repeal as it was before so the old American ambivalence on the issue is still, in effect, the law of the land.

On the other hand, the demand for (total) abstinence probably is less acceptable than it was before Prohibition. Our society has undergone a structural change and as a result the dominant middle-class has become more permissive toward the use of alcoholic beverages.

The business boom of the 1920's plus the World War II years and the general prosperity following World War II brought about a change in lifestyle. Values changed and were sharply different from those of the farmers, small businessmen, and professionals of the older middle class. The new cosmopolitan middle class seemed to support the norm of permissive drinking. It did not necessarily advocate it, but it did seem to consider it a matter of individual conscience.

This was the attitude toward alcohol more than a generation after the lapse of Prohibition.

CURRENT ATTITUDES TOWARD DRINKING

Whatever one's views on the gains and losses, the impact of Prohibition on our subsequent attitudes toward drinking was great. The national experiment of Prohibition was rejected, and today it is generally accepted that those adults who wish to drink have the right to do so.

The role of alcohol in health and social problems in post-prohibition America is indicated by some basic facts about the number of drinkers and the quantities of alcoholic beverages they consume.

Before we go any further let us define the word "drinking."

There is semantic confusion over the very meaning of the word "drinking." Some segments of our society define it so rigidly that they consider the use of wine at communion as drinking. Others are so lax that they consider the consumption of several bottles of beer as no drinking at all.

In reality, every individual establishes her/his own definition. In an effort to bring order to chaos, investigators have established a frame of reference for drinking that defines it as "the use of any amount of beverage alcohol, other than in connection with religious ritual."

To most people, the unmodified word "drinking" is likely to mean moderate, social, or controlled indulgence. Those very words are likely to be used to describe the 70 to 80 million adult Americans who occasionally consume moderate amounts of alcoholic beverages with no adverse effects.

To escape the generalities which seem correct because we so frequently use them, we must consider four dimensions to define drinking. We must consider:

1. The pattern of occurrence -- whether it be only on rare occasions or many times each day;
2. The quantity consumed -- ranging from a sip to large amounts;
3. The effect -- whether it be mild relaxation or a drunken stupor;
4. The question of control -- whether the drinker can stop when she/he chooses or whether she/he is unable to control her/his drinking and may become completely dependent on alcohol.

Drinking patterns vary not only among individuals, but also with the same person under different circumstances and in various situations.

The tax-paid alcoholic beverages -- distilled spirits, wine, and beers -- consumed in 1970 by the average person in the drinking-age population, contained 3.93 gallons of absolute alcohol. This is alcohol -- not total volume of drinkables. It allows for each drinker, about 44 fifths of whiskey, or 98 bottles of fortified wine, or 157 bottles of table wine, or 928 bottles of beer. The average may also be illustrated as a little over three ounces of whiskey a day, or the equivalent in other beverages, for example, one cocktail, one glass of wine, and a bottle of beer a day.

These calculations allot the alcoholic beverages to an "average" drinker. The average drinker, of course, is a myth. The country probably does not have a single man or woman who consumed exactly 3.93 gallons of alcohol during 1970, nor an individual who divided this quantity evenly over all the days of the year. Residents of different regions and states drink different average quantities each year. The average male drinker consumes three times as much as the average female drinker, and the average alcoholic person takes about 11 times as much as the average non-alcoholic person who drinks.

If we accept reliable estimates that about 9 - 14 million people in this country are alcoholic and problem drinkers, then the average drinker with no alcohol related problems actually drinks much less than the national average of 3.93 gallons of alcohol. Thus, as surveys confirm, this nation has millions of occasional and very moderate drinkers.

Recognizing, however, that many Americans are drinking to excess, endangering the lives and welfare of themselves, their families, and all those around them, many forces are working to encourage personal and social controls to provide medical, psychiatric, and social services for those whose drinking is out of control; and to create a new climate in which every individual understands the effects of alcohol, and accepts responsibility for its intelligent, considerate use -- if he/she chooses to drink.

ALCOHOL: WHAT IS IT?

Alcohol is a colorless, odorless substance whose basic elements are carbon, hydrogen, and oxygen.

Beverage alcohol is ethyl alcohol or ethanol, a particular type of alcohol among a variety of other alcohols such as methyl or wood alcohol, and isopropyl or rubbing alcohol.

They all contain a hydroxyl group (OH), but may vary in the length or arrangement of their other elements. (For example, the structural arrangement of elements in ethyl alcohol is C_2H_5OH, while that of methyl alcohol is CH_3OH.)

All alcohols are depressants and toxic to the body. But while ethyl alcohol is commonly used as a beverage, the others are unfit for human consumption. Methyl alcohol, for example, can cause blindness and death because it oxidizes very slowly to become formaldehyde and formic acid.

An occasional deviant drinker has been known to consume such alcohol derivatives as antifreeze or sterno, thereby generally experiencing severe illness and possibly death. Even minute quantities of methyl alcohol may be considered lethal.

Besides alcohol and water, all spirits contain variable amounts of other volatile substances known as congeners. The congeneric content, then, is the sum of the main constituents in whiskey other than alcohol and water.

The congeners include additives for color and taste and even come from the wooden barrels in which the spirits are aged. They are present in extremely small quantities, but do affect the quality and ultimately the price of the beverage.

The purity of the spirits will affect the rate of absorption by the body and also the temporary aftereffects of drinking, since the congeners retard the absorption rate of ethyl alcohol and may increase the aftereffects.

ALCOHOL: HOW IT IS MADE

All alcoholic beverages are produced by the process of fermentation of sugar with yeast spores. The fermentation process involves chemically altering the sugar by allowing it to mix with yeast and water for a period of time.

The sources of sugar in the fermentation process vary for each beverage. For instance, beer draws its sugar content from malted barley, wine from fruits, whiskey from malted grains, rum from molasses, and tequila from cactus.

Alcoholic beverages such as beer and wine are the result of this fermentation process. They do not have to undergo any further processing.

Beer is developed from a mash of cereal and water. The mash is boiled then cooled; the cereal is a starch and must be converted to sugar by a process called malting. The mixture is allowed to stand at controlled temperature after which it is referred to as "wort." Another grain, hops, is added to provide the typical beer taste. The mixture is boiled again, then filtered and cooled. Yeast is then added to begin the fermentation. After this has taken place, the sediment is strained out and the final product is ready. Bottled beer is usually pasteurized before being marketed, while draft beer is not.

Wines, as we have said, are made from fruit juices. Dry wines have only slight traces of sugar in them following fermentation. The sweet dessert wines need some concentrated form of alcohol added to keep the extra sugar from fermenting (fortified wine).

While the fermentation process is essential to all alcoholic beverages, hard liquors (whiskey, gin, vodka, etc.) result from further concentration of the fermented alcohol by a process called distillation.

Distillation occurs when the fermented brew is boiled, changed to a vapour, passed through a cooling tube and condensed back to a liquid. The alcohol is in a more concentrated state because it boils at a lower temperature than water and therefore is removed by vaporization, leaving the water content behind.

The alcoholic concentration in beverages becomes more vivid when these processes are understood. For instance:

- Most American beers contain 4% alcohol per unit volume.
- Dinner wines generally are 10% to 12% alcohol per unit volume.
- Dessert wines range from 17% to 22% alcohol per unit volume.
- Distilled beverages range from 40% (80 proof) to 50% (100 proof) alcohol per unit volume.

Per unit of volume refers to the fact that, for instance, in a twelve-ounce can of beer, only four percent of the total volume of that can is pure alcohol.

The term "proof" arose from an old purchaser's practice of examining the alcohol concentration of whiskey to avoid being cheated.

A buyer would moisten his gunpowder with whiskey and try to light it. If the dampened gunpowder burned, he knew the whiskey was not watered down and labeled it 100 proof.

While the method of identifying proof has changed, the term has remained. "Proof" strength is double the alcohol percent. One hundred (100) proof is 50% alcohol.

SOME REASONS FOR DRINKING

Within the context of our society, we drink for many reasons, some valid and some grossly unfortunate. We drink: 1) for ceremonial purposes, 2) for dietary reasons, 3) for refreshment, 4) for compliance with customs, 5) to feel happier, and 6) for pathological reasons.

Those who drink for ceremonial, dietary, and refreshment purposes are likely to consume moderate amounts of beverages. Ceremonial drinkers most often use alcohol in connection with religious ritual. Dietary drinkers are those who use alcoholic beverages as part of their meals.

Some persons drink because of taste or thirst. Others are complying with prevailing custom when they toast the newlyweds, drink at cocktail parties, or celebrate a festive occasion.

A cocktail before dinner may relax a person. It may help promote conversation with strangers, or it may promote a feeling of good fellowship with friends or associates, such as lodge brothers, for example.

Pathological reasons for drinking occur when the individual experiences a real inner compulsion to drink. It is the pathological drinkers who are society's problems and are most likely to become the chronic alconolics.

For many teenagers, drinking seems symbolic of the transition from adolescence to adulthood. But try as we might, we cannot limit this motive to the younger set. The fact is many adults view their drinking as a sign of femininity, masculinity, or sophistication.

REASONS FOR ABSTINENCE

The history of the drives for abstinence in this country is told elsewhere in this guide. Reasons for total abstention are many, but seldom would any list of reasons include a dislike for the taste; that's incidental, if any factor at all. In all likelihood, persons favoring total abstinence do so for one of the following reasons or some combination thereof:

1. Religious beliefs that the use of even small amounts of beverage alcohol is sinful;

2. Fear that uncontrolled drinking may develop after years of controlled use;

3. A combination of religious beliefs and other attitudes.

ALCOHOL AND YOUTH

The problems of alcohol are not limited to any one segment of our society for they cross all age boundaries, ethnic groups and socioeconomic classes.

Particular attention should, however, be placed on this country's youth because, from all available statistics and reports, the country's number one drug problem (alcohol) is quickly spreading to the primary grades.

Because the typical image of an alcoholic generally implies a syndrome that develops over a lengthy period of time, it might be difficult to classify some school age children as alcoholics, but we do find that children are experiencing drinking problems and these problems may be developing into a pattern leading towards alcoholism.

While the adult public in the last decade has agonized over the possibility that their children might become hard drug addicts, their perception of alcohol abuse in children has been confused.

One reason for the confusion is that hard drugs are illegal and illicit, and so we are perfectly clear that they belong over there, with the bad things of life. But alcohol is open, above board, part and parcel of the American home and business. And the most destructive addiction actually is in the adult consumption of alcohol. Small wonder that the adult perspective on teenage drinking is often blurred.

What commands the attention of our concern in teenage drinking are the statistics, which clearly show that drinking among teenage Americans is increasing so steadily that it is almost universal. Sixty-three percent of the 7th grade boys and 54 percent of the girls have had a drink, but by the time these students get to 12th grade, 93 percent of the boys and 87 percent of the girls will be drinking, some so heavily that they are already alcoholics. The same report indicates that those teenagers who report getting drunk four times a year (a yardstick for labeling problem drinking) climbs from about 8 percent in grade 7 to almost 30 percent by 12th grade.

The percentage of teenage drinkers, then, is very high and climbs steadily up to about the age of 24 where it begins to decline.

While the mere incidence of teenage drinking may or may not be alarming to you, the apparent acceptance of the drug alcohol as a virtual necessity in our lifestyle should certainly be reason enough for alarm.

Obviously we know that something undesirable is taking place, but we also know that statistics need to be examined and put into a proper context. For example, we may assume that it is so, but there is no proof to show any necessary connection between drinking and delinquency. Nor can it be shown that early exposure leads to excessive drinking later in life. Some of the highest rates of alcohol addiction (physical dependency) have been found in children under strong pressure not to drink, whereas children of some groups exposed to alcohol at a very early age grew up to have the lowest rates of alcoholism of any cultural groups in America. In one study of 27 colleges, those with the lowest percentages of drinking students usually had the highest percentages of intoxication. In the other group in which drinking was fairly common, excessive drinking was reported to be infrequent.

What are we to make of such conflicting information? It seems to be leading us to the conclusion that drinking among teenagers is no less a complex matter than among adults.

Since most of us, in daily life, meet not statistics but children, are there no guidelines to understanding teenage drinking?

Let's try a couple of perspectives. The fact that teenagers drink or that large numbers drink may not be as significant as the answer to another question. That is, how they drink, or the role that drinking plays in their lives. If a teenager has a drink with some friends, panic may not be the appropriate response, any more than if he or she is exploring other experiences. The big question is whether drinking is getting beyond their control or is beginning to interfere with what they want and need to do.

One major distinction about teenage behavior is the great need to conform to the peer group. Another primary need is to find things out for themselves. So our perception of what is going on may be helped, if the vision of one eye that sees a teenager drinking is adjusted by the other eye which sees that the teenager is doing what at the moment she/he is compelled to do; that is, to be a member of the group, or to experience something for her/himself. If the teenager feels personally secure, he or she is likely to move beyond these experiences. Certainly motivation for original use may be different than that for continued use.

But suppose a drinking pattern seems to be developing?

If a person is doing something that we consider to be destructive to her/himself, our instinct is to get the person to stop the destructive act. But consider that if a person is doing what she/he is doing she/he cannot stop her/himself; it is not likely to be helpful only to keep badgering the person to stop. Perhaps that is why most studies show that laws and rules do not have any real effect on practices. No less than with adults, persistent teenage drinking is the symptom, not the problem. We must bend every effort to come to grips with what is troubling the person.

There are two specifics, which do seem to be helpful. One is somehow to put the person in touch with the plain facts about drinking and excessive behavior. The second is contact with other teenagers who have successfully been through similar experiences.

Applying the same perspective of drinking as a symptom and not the problem, the disease of alcoholism takes on a new meaning when we begin to examine the illness more closely.

It's clear that alcohol does not cause alcoholism, but is merely the essential ingredient in the development of the illness. Certainly it is not the causative agent any more than if we were to say that sugar causes diabetes or fat is the sole cause of obesity. We know that the vast majority of drinkers do not become alcoholics, but we must also recognize that some of alcohol's pharmacological properties contribute substantially to the psychological and physical dependence on this drug.

The sociologists and anthropologists have given us perhaps the greatest contributions in the understanding of alcoholism as it crosses (touches) ethnic, religious and cultural groups. Their findings show that for groups that use alcohol to a significant degree, the lowest incidence of alcoholism is associated with the following habits and attitudes:

1. Children are exposed to diluted alcohol early in life within a strong family or religious setting.
2. The beverage is considered mainly as a food and usually consumed with meals.
3. Parents present an example of moderate drinking.
4. Drinking is considered neither a virtue nor a sin.
5. Drinking is not a sign of adulthood.
6. Abstinence is socially acceptable.
7. Intoxication is not socially acceptable.
8. "Ground rules" of drinking are clear.

ALCOHOL: ITS BEHAVIOR IN THE BODY

Before getting into the behavior of alcohol inside the body, let's see how it behaves externally.

If you were to apply alcohol directly to tissue cells, it would precipitate and dehydrate the protoplasm. In such direct contact it would be very damaging. But applying alcohol locally is not harmful because the upper skin is dead, so it serves as a protective mechanism.

But in the case of a wound or a break in the skin, the sting of the alcohol means that you're getting to live tissue, that you are irritating and damaging some cells. Properly used, alcohol can have a beneficial effect locally, as an antiseptic and as an astringent. In concentrations of 60 to 90 percent alcohol is a very good antiseptic for cleansing wounds and destroying bacteria. In the case of hemorrhoids, which is an extrusion of anal sphincter tissue, the dehydrating (astringent) effect of an alcohol pack will tend to constrict and draw the tissue back up.

There are two situations in which the irritating effect of alcohol can be used to advantage. The irritant effect of rubbing alcohol gently into the skin will bring warmth to the area because of the stimulated vascular flow. This type of "rubifacient" action can relieve sore or stiff joints. Another instance is that in which a person about to faint may be revived with a sip of brandy. The irritating effect of alcohol on the mucous membranes sets up a reflex action that stimulates the heart, so that the blood pressure is increased.

Another beneficial local effect results from the fact that alcohol evaporates very quickly, which produces a cooling effect. That's why an alcohol bath is often used to lower the temperature when a child is running a high fever.

Behavior in the Body

While it has some properties that qualify it as a food, alcohol behaves differently from most foods. Similarly, though it is also a drug, alcohol behaves differently than most other drugs.

Our primary interest in the strange behavior of alcohol has to do with its effects on the nervous system. However, if we are to understand not just what happens, but how and why it takes place, we first need to trace the peculiar behavior of alcohol as it moves through the digestive system, its absorption into the blood, and the metabolism in the liver, before we consider its effects on the nervous system.

Alcohol and the Digestive System

First a quick rationale and sketch of the digestive system.

In such complex multicellular bodies as humans, a digestive system is necessary in order to transform foods into substances that are able to diffuse into the blood stream, and then to all cells in the body.

The digestive systems consists of the:

Alimentary Canal	and the	Accessory Organs
Esophagus		Salivary Glands
Stomach		Tongue
Small Intestine		Pancreas
Large Intestine		Liver

The path that food travels through the digestive system or the gastro-intestinal (GI) tract is a coiled and twisted channel that winds and bends for almost 30 feet from the esophagus to the anus.

The Beginning: Digestion starts, without any conscious direction on our part, immediately as food enters the mouth. As the teeth grind, the saliva lubricates and the tongue guides the food down the throat to the esophagus, the carbohydrates start to break down, and the tortuous ride through the GI tract has begun.

The food is already finely chopped up, but needs help to be moved along. The nerve ends of the esophagus set up constriction waves (peristalsis), forcing the food toward the stomach.

In the Stomach: Here hydrochloric acid and the enzyme pepsin begin to break down the protein, forming simpler materials which will soon become amino acids. The gastric emptying time takes about two to four hours.

Wild Intestional Ride: After being chewed, churned and covered with digestive juices, the food is off on a four to eight hour ride through the small intestine.

Acid added in the stomach stimulates hormones to the liver, neutralizing the acid and permitting the enzymes to break the food down further.

Millions of practically microscopic fingers (villi) stir the solution and transfer the most usable nutrients into the blood and lymph systems. Not until now, when it is ready to proceed through the colon (where what is left will remain for ten to twelve hours) is the food in the form of substances able to be absorbed into the bloodstream.

Alcohol Drops Out: All the foods have made the several hours long roller coaster ride -- all except one, alcohol, which in this respect is radically different from other foods.

Alcohol does not go through the digestive process. It is not acted upon by any of the enzyme systems. It is not broken down. It is rapidly absorbed through the stomach walls into the blood. Whatever alcohol gets to the small intestine is absorbed even faster. In other words, the very same chemical entity that enters the stomach as alcohol is able to penetrate the membranes and move as a molecule intact into the blood vessels.

Absorption: Since the blood carries it to the brain, it is this very rapid absorption of alcohol into the blood that accounts for the almost instantaneous effect on the central nervous system. Taken orally, drugs other than alcohol do not have such immediate effect, because most other drugs take a long time to be absorbed into the blood.

Alcohol may be absorbed into the blood from any part of the intestinal tract, but in order for it to do so the alcohol must be in contact with the outside membrane. Therefore, anything which keeps the alcohol from this contact delays absorption. So the advice, "don't drink on an empty stomach," has some basis in the body chemistry. If the alcohol has some food to mix with, it will delay contact with the membrane surface.

Similarly, diluting the drink, or consuming a substance like butter or milk which coats the stomach lining, will tend to delay absorption.

Alcohol in the Blood

The key to understanding levels of alcohol as they affect the central nervous system is not in the quantity consumed but in the concentration of alcohol in the central nervous system and in the blood, where it can be measured. For example, 10 cc of a very strong acid in a pint of water has a much higher acidic concentration than the same 10 cc in a gallon of water. Similarly four ounces of alcohol in a man who weighs 100 pounds would have a more pronounced effect than four ounces in a man of 200 pounds.

The analogy needs to be clarified. The body is about 80 percent water, and alcohol being chemically quite similar to water, tends to follow the water, which is fairly uniformly distributed throughout the entire body tissue. The blood level in the 100 pound man with four ounces of pure alcohol would measure 0.30 milligrams percent. Other factors constant, the same four ounces in the 200 pound man would measure 0.15 milligrams percent.

Alcohol and Metabolism

When it comes to drugs, we are naturally concerned with what they do to the body, but in the case of alcohol, the body does something to it, which is very important to our understanding.

Practically all (90 to 99 percent) of the alcohol taken into the body is consumed, oxidized in the metabolism that mostly takes place in the liver. Although most drugs go through some form of metabolic change, only alcohol directly enters the energy-supplying system of the body. Now, what is so important about this unique behavior of alcohol?

Oxidation Means Energy: In the process of being metabolized, the oxidation releases energy at the rate of seven calories per gram of alcohol. Just one shot of alcohol (16 grams) equals over 100 calories. It is this production of energy which is alcohol's one claim to being a food. But it is also a major problem for the alcoholic.

Because alcohol requires no digestion, it is a quick source of energy. Other than that, it has no nutrient value. It provides no vitamins, no minerals, no proteins.

The alcoholic generally combines other quick energy foods, such as popcorn and sweets with her/his alcohol. By sustaining one's energy levels in this way, a person deceives her/himself nutritionally. That is, the body is deprived of the nutrients absolutely necessary to health, and one may not be aware of it. Thus, the alcoholic often develops nutritional deficiencies that may lead to serious disease.

Steady State Metabolism: In most other foods, the metabolic process tends to keep up with the intake. The more the body has to metabolize the faster the biochemical reaction. Not so with alcohol. It requires about one hour to oxidize, to break down 8 grams of alcohol, and this rate of metabolism does not change.

One shot of alcohol (16 grams) takes two hours to completely metabolize. If a person were to wait two hours before having another drink, she/he would not feel the effects. But if a person has two or three shots in an hour, more than the body can metabolize, then we get accumulations of alcohol which affect the central nervous system.

Effects on Different Organs of the Body

Heart: Alcohol affects the heart in a way that may keep it from beating properly.

GI Tract: Alcohol also irritates the intestinal tract, causing nausea, vomiting, and diarrhea. Many people have a drink before meals because it really does whet the appetite by stimulating gastric secretions. In moderation this works all right, but with chronic use the irritation inflames the intestinal tract, which may contribute to the production of ulcers.

The Liver: Normally, after a meal, large vacuoles filled with fat appear on the liver. After some hours they are consumed in the biochemical process, and that's that. However, because of nutritional deficiencies the chronic user of alcohol cannot manage these fat vacuoles over a period of time. So they accumulate, and this results in a fatty deterioration of the liver, leading to cirrhosis, which is a major cause of incapacitating illness and premature death in alcoholic persons.

The Kidneys: The major effect of alcohol on the kidneys is diuretic, that is, a loss of body water. This happens in two ways. One way results from alcohol's depressing the release of the pituitary hormone ADH, whose function is to conserve body water. By decreasing the amount of this pituitary hormone, the body water is decreased. Secondly, while the intake of fluid adds water, when it leaves the body it draws with it additional ions, which in effect means an additional loss of water.

Alcohol and the Central Nervous System

When people take a drink "to get relief or relaxation, to ease tensions, or to get rid of anxiety," they are expressing how they experience changes, which also have a physiological basis in the central nervous system.

The physiological changes in the nervous system are due to alcohol's primary, actually, its only effect, as a depressant. Alcohol qualifies pharmacologically as a "general anesthetic." That's what general anesthetics do: they depress the central nervous system. And, the higher the dosage, the deeper the depression. The reason that alcohol is not used medically as a general anesthetic agent is because the dosage adequate for anesthesia may cause respiratory and circulatory collapse. It's just too dangerous.

Route of Alcohol in the Nervous System

Alcohol does not simultaneously depress all centers of the nervous system.

Alcohol's numbing effect begins at the upper part of the brain, the cerebrum. First to be affected are the forelobes, resulting in decreased ability to reason and make judgments.

Alcohol next reaches the cerebellum and the reticular activating system. The result is emotional instability, slowed responses, impaired vision, and poor coordination.

Moving downward it skips the medulla, depressing the spinal cord, which is the principal nerve conducting path to and from the higher centers.

The last area to be affected is the medulla, in which are the primary controls for respiration and the heart, as well as certain reflex centers.

Depressing the Nervous System

The area of the nervous system to be the most immediately and deeply depressed by alcohol is the cerebrum, where the kind of critical thinking connected with anxiety takes place. What in the drinker's awareness is experienced as excitement or stimulation may be looked upon as a release phenomenon of the highest brain functions.

There seems to be some kind of contradiction in terms. How can alcohol be a depressant and a release phenomenon at one and the same time?

It does seem to be a language problem. Perhaps we think of depression only as repression. That would be incorrect, because the depressing effect upsets the physiological function, whatever it may be. If the function of a given center (such as the Reticular Activating Center) is to control certain activity, then the depressing effect will be to release controls. If the function of a center, such as the vomit center, is to stimulate vomit, the depressant effect will be to repress the vomit.

Therefore, when we talk about depressing a given area in the central nervous system, it can mean either releasing or repressing a particular activity. Since every center in the nervous system performs some function that is natural and necessary to a human organism, what is more to the point is that alcohol upsets the necessary functions of the nervous system.

What takes place, and when, helps us to understand more clearly alcohol's effect on the nervous system.

Reticular Activating System

Newer research points to an important area below the cortex and above the spinal cord, which acts as a balancing and integrating system. One of many integrating systems that enable us to bring the various senses into balance, the R.A.S. integrates impulses coming up the spinal cord with impulses coming down from the cortex.

When this system is depressed in the early states of drinking, once again it may be experienced as stimulation and freeing of inhibitions, because the impulses coming up to the cortex are free-floating. The intersity of unintegrated sound and vision impulses, of sensory awareness generally, may be heightened.

What is pleasing to the drinker is at the same time depriving her/him of an important integrating system in the nervous system. Just to reach down and pick something off the table becomes a problem, because it involves coordinating eye and hand activities. Changes in mood and emotional states may occur abruptly, because these controlling systems too are lost.

Two Safety Valves Lost

We have been talking about centers in the nervous system whose normal function is to integrate and control activity. Alcohol has the effect of opening the control gates.

There are two centers whose normal role is to stimulate activity. One of these is the vomit center and the other is the respiratory center. When they are working right they act as control or safety valves. If the body takes in something injurious, the vomit center is stimulated to get rid of it. But after a few drinks of alcohol, the vomit center becomes depressed, the person goes on drinking, without the interferences of the vomit defense mechanism.

Another, and more serious safety valve which is undermined by alcohol, is the respiratory center in the medulla. When we climb a mountain or do some other concentrated heavy work, our rate of breathing increases dramatically. We've gotten the signal to slow down. That's a function of the respiratory center. When a person is drinking, this is one of the last centers in the nervous system to become depressed. That means that someone can practically drink her/himself to death.

Tolerance

There is some confusion as to whether drinkers develop a tolerance for alcohol. Biochemically, that is, in terms of the body's capacity to metabolize alcohol, there does not develop any tolerance. A person who has been an alcoholic for ten years metabolizes alcohol at 8 grams per hour, exactly the same as the person who took her/his first drink today.

And yet, there are people who can drink a lot of alcohol, and it doesn't seem to affect them.

One way to understand this tolerance is an adaptive or a learning mechanism. Alcoholics may learn how to operate under the influence of the drug. The novice drinker, with no sense of her/his boundaries, may make a fool of her/himself at a party. But the experienced drinker may have "learned" how to manage within the familiar terrain of her/his drunken state.

It is also probable that the physiological reaction of the person addicted to alcohol is changed. This applies to all cells of the body, but particularly to those of the brain cells. They act as if they have become adapted to alcohol, so that alcohol assumes the characteristic of a foodstuff required by the cells.

Effects of Alcohol on Sleep

The effects of alcohol on sleep are known to anyone who went to bed having had too much to drink, only to toss and turn fitfully,"headachey"and worn out the next morning. There is a stage in the night's sleeping cycle, called REM or dreaming sleep. Taking several drinks before bedtime decreases the amount of REM sleep. There are indications that the greater the amount of alcohol, the more prolonged is the block in REM sleep. The usual consequences of being deprived of REM sleep are impaired concentration and memory, as well as tiredness, irritability,and anxiety.

ALCOHOLISM:

Physiological, Psychological, and Sociological Factors

For a long time, people with drinking problems were lumped together under the label "alcoholic." All were assumed to have the same illness. The search was for the cause of alcoholism.

As more was learned, it became clear that there are many kinds of drinking problems, many types of people who have them, and many reasons why they begin and continue to drink too much.

The search for a single cause of alcoholism has widened to include physiological, psychological, and sociological factors that might, singly or in combination, explain problem drinking by various types of individuals.

The Cooperative Commission on the Study of Alcoholism reported:

An individual who (1) responds to beverage alcohol in a certain way, perhaps physiologically determined, by experiencing intense relief and relaxation, and who (2) has certain personality characteristics, such as difficulty in dealing with and overcoming depression, frustration, and anxiety, and who (3) is a member of a culture in which there is both pressure to drink and culturally induced guilt and confusion regarding what kinds of drinking behavior are appropriate, is more likely to develop trouble than most other persons. An inter-mingling of certain factors no doubt varies from one individual to another.

Physiological Factors

To date, neither chemicals in specific beverages nor physiological, nutritional, metabolic, nor genetic defects have been found which would explain alcoholism.

Alcoholism occurs frequently in children of alcoholic persons which suggests a hereditary basis. Yet it also occurs in the children of devout abstainers. And an early study showed that children of alcoholic parents placed in foster homes before the age of 10 were no more likely to become alcoholic individuals with advanced problems rather than children of non-alcoholic parents.

Vitamin or hormone deficiencies have been suggested as causes of alcoholism. Most of such deficiencies seen in individuals with advanced alcoholism appear to be results, rather than causes, of excessive drinking.

There is no proof that alcoholic persons are generally allergic to alcohol itself or to other non-alcoholic components of alcoholic beverages.

Interest in the physiological basis of alcohol dependence has grown in recent years. The current state of knowledge has been summed up:

> The nature of the addictive process, the developmental sequence of events and the central nervous system alterations which define the condition of alcohol addiction (physiological dependency) are unknown. Beyond the obvious requirement of ingestion of sufficient quantities of alcohol over a long enough period of time, the determinants of alcohol tolerance and dependence remain a matter of conjecture. The development of approaches to these very basic questions constitutes perhaps the major challenge to the biological scientist concerned with physical dependency.

Psychological Factors

Psychologists and psychiatrists have described alcoholic persons as neurotic, maladjusted, unable to relate effectively to others, sexually and emotionally immature, isolated, dependent, unable to withstand frustration or tension, poorly integrated, and marked by deep feelings of sinfulness and unworthiness. Some suggest that alcoholism is an attempt at a self-cure of an inner conflict, and might be called "suicide by ounces." There are no reliable studies to confirm these observations.

Many researchers have gathered data showing that alcoholic individuals often come from broken or unhappy homes, and have undergone serious emotional deprivation during their childhood. But many non-alcoholic men and women have these backgrounds and personality qualities. Some of the latter may suffer from a variety of mental illnesses; others lead reasonably normal lives.

If there is such a thing as an "alcoholic personality" or a "pre-alcoholic personality" - its specifications are loosely defined and often contradictory.

Sociological Factors

One of the most promising studies of the causes of alcoholism has been the comparison of drinking practices and alcohol problems with different cultures and societies. This is aimed at finding why alcoholism is widespread in some national, religious, and culture groups but rare in others.

Groups with highest rates of alcoholism classed as "high incidence" groups include the northern French, the Americans (especially the Irish-American and Alaskan Indian), the Swedes, Swiss, Poles, and the northern Russians. Relatively low-incidence groups include the Italians, some Chinese groups, Jews, Greeks, Portuguese, Spaniards, and southern French.

Differences between some of these cult es are seen within the United States. In one survey of problem drinkers in New York City (when the total population was about 10 percent Irish, 15 percent Italian, and 25 percent Jewish), 40 percent of the alcoholic persons were Irish, 1 percent Italian, and none Jewish. In a California study, in an area with large proportions of Irish, Italians, and Jewish residents, 21 percent of the alcoholic persons were Irish, 2 percent Italian, and 0.6 percent Jewish.

The low rates of alcoholism seen in some groups cannot be attributed to abstinence. Most Mormons and Moslems, for example, do not drink because of religious beliefs and their alcohol rates are low. But among the Italians, Greeks, Chinese, and Jews, a large percentage of the population drinks, and many use alcohol abundantly, yet their alcoholism rates are low, too. The per capita consumption of alcohol in Italy is second only to top-ranked France, but alcoholism rates among Italians are relatively low.

Drinking Customs Are Important

One authority suggests that the rate of alcoholism is low in those groups in which the drinking customs, values, and sanctions are well established, known to and agreed upon by all, and consistent with the rest of the culture. By contrast, groups with mixed feelings about alcohol (such as the Anglo-Saxon Protestant group in America) -- with no agreed upon ground rules -- tend to have high alcoholism rates.

This has been found among the few Mormons who do drink, among drinkers who feel forced to overindulge to prove their "manliness," and especially among children and parents with conflicting attitudes -- such as a father who accepts drinking and a mother who feels drinking is a sin.

In general, research has shown that among groups that use alcohol freely, the lowest incidence of alcoholism comes with certain habits and attitudes:

1. The children are exposed to alcohol early in life, within a strong family or religious group. Whatever the beverage, it is served in diluted and small quantities, with consequent low blood-level.

2. The beverages commonly, although not invariably used, are those containing relatively large amounts of non-alcoholic components (wines and beers), which also give low blood-alcohol levels.

3. The beverage is considered mainly as a food and is usually consumed with meals, again with consequent low blood-alcohol levels.

4. Parents present a constant example of moderate drinking.

5. No moral importance is attached to drinking. It is considered neither a virtue nor a sin.

6. Drinking is not viewed as proof of adulthood or virility.

7. Abstinence is socially acceptable. It is no more rude or ungracious to decline a drink than to decline a piece of cake.

8. Excessive drinking or intoxication is not socially acceptable. It is not considered stylish, comic, or tolerable.

9. Alcohol is not a prime focus for an activity.

10. Finally, and perhaps most importantly, there is wide and usually complete agreement among members of the group on the "ground rules" of drinking.

OVERCOMING ALCOHOLISM:

Diagnosis and Treatment

Alcoholism is a treatable illness from which as many as two-thirds of its victims can recover. Yet, there persists a number of myths and misunderstandings that make it difficult for alcoholic persons to seek and get the help they need.

We still think of alcoholism as a form of moral weakness, rather than an illness -- a stigma which causes problem drinkers and their families to hide their "sins" rather than tell of their problems and seek treatment.

In addition, many people, laymen and medical personnel alike, still consider alcoholism to be untreatable, and regard the person with alcohol problems as unmanageable and unwilling to be helped. None of these assumptions is true.

The Chances of Recovery

About 70 percent of alcoholic people are men and women who are still married and living with their families, still holding a job -- often an important one -- and still are accepted and reasonably respected members of their communities. For those of this group who seek treatment, the outlook is optimistic. It is quite possible for a person with drinking problems to learn to control his drinking most of the time.

The Rehabilitation Approach

Recently, some therapists have been using a different basis for measurement of treatment outcome -- rehabilitation. Success is considered achieved when the patient maintains or reestablishes a good family life and work record, and a respectable position in the community. Relapses may occur but do not mean that the problem drinker or the treatment effort has failed. A successful outcome can be expected in at least 60 percent, and some therapists have reported success in 70 to 80 percent of their cases. This depends on the personal characteristics of the patient; the competence of the therapist; the availability of treatment facilities; and the strong support of a family, employer, and community.

"It is doubtful that any specific percentage figure has much meaning in itself," says Dr. Selden Bacon, director of the Center of Alcohol Studies at Rutgers University. "What has a great deal of meaning is the fact that tens of thousands of such cases have shown striking improvement over many years."

For the remaining part of the alcoholic population -- the skid row alcoholics and the 10 percent who are psychotic alcoholics, usually in state mental hospitals -- the prognosis is less optimistic. Less than 10 to 12 percent can achieve full recovery.

Treatment Adapted to Patient

There is no evidence that any particular type of therapist -- physician, clergyman, Alcoholics Anonymous member, psychiatrist, psychologist, or social worker -- will have better results than another. The chances of a successful outcome apparently depend more on the combination of right patient and right treatment. Different patients respond to different treatments. The earlier treatment is begun, the better are the prospects for success, although many have been treated successfully after many years of excessive drinking.

Diagnosing Alcoholism

Alcohol problems are often slow to be recognized by those who could treat them. Thus, the diagnosis of alcoholism is often made only when the illness is in its advanced stages -- when the victim is unable to control her/his drinking, may no longer have an established family life or be able to hold a job, or when malnutrition or organic damage is already present.

Members of the medical profession now realize that since alcoholic individuals rarely admit, even to themselves, that they have drinking problems, their family physician must make special efforts to discover the illness in its early stages.

Diagnosing the Alcoholic Person

Unfortunately, there is no simple diagnostic procedure for detecting alcoholism. Some of the factors involved in diagnosing an alcoholic person include:

1. The quantity of alcohol consumed. But quantity alone is an insufficient measure.

2. The rate of consumption. One pint of distilled spirits consumed during a 10-hour period causes different behavior than a pint consumed in 1 hour. Drunkenness depends on rate of consumption as well as quantity.

3. Frequency of drinking episodes. One who gets drunk three or four times a year is less liable to be labeled alcoholic than someone who gets drunk every week. Frequency of drunkenness is one factor indicating alcoholism.

4. The effect of drunkenness upon self and others. A man who commits deviant sex acts or beats his wife while drunk is more likely to be labeled alcoholic than a man who quietly gets drunk and leaves others alone. That is, the effect of drunkenness on others, and the reaction of others to the drunkenness, determines if and how the individual is labeled alcoholic.

5. Visibility to labeling agents. The police, the courts, school personnel, welfare workers, employers and, in some situations, family, friends, and helping agents - psychiatrists, physicians, lawyers - are the key sources of alcoholic labeling.

6. The social situation of the person. There are different standards set by each class and status group in our society. How one does or does not conform to the standards of one's own group will determine whether a person will be labeled an alcoholic and, therefore, be reacted to as an alcoholic.

Help in sorting our particular characteristics of alcoholic persons can usually be obtained from one or more of the following: the family physician, clergyman, Alcoholics Anonymous, Al-Anon family group, alcoholism clinic or alcoholism information and referral center, public health nurse, social worker, community mental health center, Veteran's Administration or general hospital, health, welfare or family service agency, some employers and labor unions, and local affiliates of the National Council on Alcoholism.

TREATING ALCOHOLISM

There are generally three steps in the treatment of alcoholism, although all persons may not need to take all three:

1. Managing acute episodes of intoxication to save life and overcome the immediate effect of excess alcohol.

2. Correcting the chronic health problems associated with alcoholism.

3. Changing the long-term behavior of alcoholic individuals so that destructive drinking patterns are not continued.

There are many different types of drinking problems and numerous kinds of treatment techniques available. The challenge is to identify the needs of the individual and to match them with the most appropriate therapy.

The Treatment Environment

An individual may begin treatment during a spell of temporary sobriety, during a severe hangover, or during acute intoxication. For many it will be during the drying-out or withdrawal stage.

An acutely ill alcoholic person, or the non-alcoholic individual who is acutely intoxicated, should be given care under medical supervision. A general hospital ward is considered best for preliminary treatment. A few general hospitals have long offered such care, but the majority are still reluctant to accept alcoholic men and women as patients.

A favored patient might be admitted but only if he or she paid for a private room and 24-hour private nursing care. Other patients, unable to afford such care, may be sent to the "drunk tank" of the local jail, the psychiatric ward of a state hospital, or the emergency ward of local hospitals. Most emergency wards are concerned primarily with sobering the patient, treating obvious wounds, and discharging her/him as quickly as possible.

Changing Hospital Attitudes

San Francisco's Mount Zion Hospital proved this technique was outmoded when they decided to accept alcoholic men and women simply as sick people needing hospital care. These patients were placed in open wards and treated by physicians, nurses, and other personnel who had been trained in the use of new drugs and were ready to treat them as patients who were ill. It quickly became evident that other patients were not disturbed, hospital routines were not upset, and most of the alcoholic persons were willing to undertake follow-up therapy.

A study at Massachusetts General Hospital has shown that many people with drinking problems who appear unwilling to accept treatment on a long-term basis will indeed follow through in treatment if they are met from arrival in the emergency ward with understanding, sympathy, and attention.

Although the successes at Mount Zion and Massachusetts General have been repeated at other hospitals, and leaders of the American Medical Association and the American Hospital Association have urged hospitals throughout the country to follow this lead, many are still unwilling to accept alcoholic people as ordinary patients. Change, where it comes, usually is in response to demands from the community.

Physiological Treatment

In practice, there are six physiological conditions which must be recognized and treated if an alcoholic patient is to get appropriate care.

These include:

1. Acute alcohol intoxication or severe drunkenness;
2. Alcohol withdrawal symptoms short of delirium tremens;
3. Delirium tremens;
4. Diseases often associated with alcoholism, such as cirrhosis and polyneuropathy;
5. Neurological and psychiatric conditions such as alcoholic encephalopathies; and
6. The long-term problem of addiction or dependency.

Tranquilizers are often used in the treatment of acute intoxication. These have been effective in reducing the trembling, anxiety, sleeplessness, nausea, and general discomfort which occurs when an alcoholic person stops drinking. Among the tranquilizers used are chlorpromazine, promazine hydrochloride, and chlordiazepoxide. The latter drug has been found safe and often effective in preventing delirium tremens and convulsions during withdrawal.

Delirium Tremens

Delirium tremens (DT's) is a serious and sometimes fatal condition, in which the patients are confused, trembling, feverish, and sometimes convulsive. They have terrifying hallucinations. About five percent of alcoholic people in hospitals, and perhaps 20 to 25 percent who suffer the DT's alone and unattended, die as a result. Tranquilizers, intensive nursing care, control of the food intake and fluid electrolyte balance, are important treatment aids.

It appears that delirium tremens is not simply a direct toxic effect of alcohol on the brain. In fact, it usually occurs after withdrawal -- in persons who have stayed drunk for many days or weeks.

New Medical Findings

Recent research has helped in medical management of acute intoxication and withdrawal. For example, it was observed that some alcoholic people brought to the hospital in a state of coma may not have high blood-alcohol levels but do have low blood-sugar levels. Apparently, a large dose of alcohol taken after fasting 24 hours or more can produce a rapid drop in blood-sugar and, in fact, can cause hypoglycemic coma similar to that produced by an overdose of insulin.

Research has also shown that, contrary to long-held opinion, patients during withdrawal are not always dehydrated, and do not necessarily require intravenous fluids. In fact, overhydration may be the problem, because alcoholic drinkers often consume large amounts of other liquids while on a binge.

The Tranquilizer "Bridge"

Once over the acute stages of intoxication or withdrawal, the alcoholic patient starting a long-range treatment may require a kind of drug "bridge" over the difficult early days or weeks.

Physicians commonly prescribe minor tranquilizers, such as valium or meprobamate, to produce relaxation and to reduce the tensions which many alcoholic persons believe to have triggered their drinking bouts. Patients are cautioned to beware of switching dependence from alcohol to tranquilizers.

Aversion and Deterrent Agents

Other physicians use "aversion" therapy - administering an alcoholic beverage and at the same time a powerful nausea-producing agent like emetine. Repeated treatments are intended to develop a conditioned reflex loathing for alcohol in any form.

More widely known and used are the so-called "deterrent agents" such as disulfiram (antabuse). A patient regularly taking this finds that if he drinks any alcohol a pounding headache, flushing, nausea, and other unpleasant symptoms will result.

Physicians screen patients carefully to decide which treatment is most appropriate for a given individual. The "aversion" methods of treatment require close medical supervision and informed consent of the patient.

Psychological and Social Therapy

Drug therapy can provide important, although temporary, relief for many patients. However, for most patients, it can help only as the introduction to treatment which attempts to get at the factors underlying the alcoholic person's drinking.

Psychotherapy Helps Many

Experience has shown that long-lasting results can be achieved for many patients primarily through psychotherapy. It covers various kinds of self-examination, counseling, and guidance. A trained professional works with, rather than on, patients, alone or in groups, to help them change their feelings, attitudes, and behavior toward more rewarding patterns of living.

The psychotherapeutic approach usually starts out with gaining acceptance by the patient her/himself and, perhaps, her/his family of the alcoholic person as one who is sick but not evil, immoral, or weak. And there must be genuine acceptance by the patient of the idea that she/he needs help. Once this is done, the therapist attempts to understand some of the patient's underlying tensions as well as his more troublesome life problems. She/he tries to solve those problems that can be readily handled, and to find a means, other than drinking, which will enable the patient to live with those problems that cannot be solved.

Preaching Doesn't Work

Most successful therapists say that pleading, exhortations, telling their patients how to live their lives or urging them to use more will power, are usually useless and may be destructive. They stress the need for creating a warm, concerned relationship with the patients.

Psychotherapy for alcoholic patients differs somewhat from that used with other patients. It tends to be directed more to action, focusing on the immediate life situation of the patient and his or her drinking problem. Many therapists bring members of the patient's family into the therapy program. Research has shown that the family may include another member, perhaps more emotionally disturbed than the patient, who may be partly responsible for the alcoholic person's drinking.

How Long in Treatment?

Usually patients find that sobering up means that they must face a backlog of personal, family, financial, and social problems. They may need help to work out these problems. Many therapists argue that treatment cannot be conducted on a hit-or-miss, intermittent basis, or restricted to straightening out occasional drinking episodes. They suggest frequent sessions during the first weeks or months, and then sessions at longer intervals as the patient progresses.

On the other hand, doctors at the Cleveland Center on Alcoholism claimed after five years of experience with nearly 2,000 patients that a substantial portion could be given significant help in from one to five therapeutic sessions. Not advocated for all, this short-term therapy was found to be most effective with those with good family ties and a determination to get well, who could with help face their situation quickly.

Some therapists claim that individual treatment on a one-to-one basis is the most successful. Others prefer group therapy, especially when a group of patients is treated simultaneously by a team of therapists.

Voluntary Helpers

The discussion of treatment resources has so far centered on the role of the medical and allied professions in helping the alcoholic person. Yet there are many organizations and agencies, staffed largely by non-medical personnel, which provide help to countless thousands of alcoholic persons, and aid them in reestablishing better relations with their families, employers, and community.

Alcoholics Anonymous

One of the major voluntary helpers is the fellowship of Alcoholics Anonymous. AA is described as a loosely knit, voluntary fellowship of alcoholic individuals gathered together for the sole purpose of helping themselves and each other to get sober and stay sober. It has also been pictured as serving its members first as a way back to life, and as a way of living. It has about 425,000 members in about 13,000 groups in the United States. There are perhaps 600,000 alcoholic men and women participating in AA all over the world. However, despite its scope, even AA reaches only a limited number of those who need help, when the approximately 9 million alcoholic and problem drinkers in our country are considered.

Important to the AA approach is an admission by the alcoholic person of her/his lack of power over alcohol. She/he finds her/his life unmanageable and situation intolerable. For some, this realization may come when they have lost everything and everyone. For others, it may occur when they are first arrested by the police or fired by their employer. At this point, the indivjdual must decide to turn over her/his life and her/his will to a power greater than her/his own. Much of the program has a spiritual, but nonsectarian basis.

During the early years of AA, some members insisted that "only an alcoholic can understand an alcoholic," and there was little cooperation between AA workers and physicians, clergymen, and social workers. As they have come to know one another better, most AA members no longer hold this view, and cooperation with professional therapists has been increasing. Conversely, professionals strongly encourage membership in AA as part of the treatment programs for alcoholic people in detoxification centers in general and psychiatric hospitals, clinics and prisons.

Al-Anon and Alateen Serve Families

Other organizations stimulated by the example of Alcoholics Anonymous have been effective in involving family members and helping them. Al-Anon, an organization of spouses and other relatives of alcoholic patients, is available whether or not the alcoholic family member is in AA or part of some other rehabilitation procedure. The value of membership is to learn that one is not alone in this predicament and to take advantage of others' trial-and-error attempts at better adjustment. Alateen is a parallel organization for the teenage children of an alcoholic parent. These organizations are listed in most telephone directories.

Many professionals emphasize that, valuable and widely accessible as it is, AA should not be considered as a complete form of treatment for all alcoholic individuals; rather, it should be viewed for many as a support to and not a substitute for various forms of therapy.

Other Helping Hands

The clergy is taking an increasingly active role in the treatment of alcoholic individuals. Traditionally, addictive drinking was considered a sin, and its treatment, therefore, a responsibility of the clergy.

The original goal of moral reform has now changed considerably. After deep reappraisal, many members of the clergy of various faiths have taken a new approach based on modern psychological and psychiatric knowledge; with alcoholic people, they are following the pattern of pastoral counseling provided generally for people in trouble. They are also becoming valued members of therapeutic teams administering group therapy.

Vocational rehabilitation workers, public welfare caseworkers, visiting nurses, and probation and parole officers have also been trained to help alcoholic persons. This is especially true of personnel managers in industry, who are often the first to detect the heavy drinking of employees and to start them on the way to treatment.

Help for alcoholic men and women and their families is provided by many other agencies and workers, both governmental and private. Some of these are discussed in the section, The Helping Network.

Preventing Alcohol Problems and Alcoholism

Preventing problem drinking and alcoholism has become a national health goal. Reaching it will depend in the long run on the private decisions and behavior of every citizen.

We have tried legal prohibition of alcohol and have rejected it. Some states are still experimenting with controlled sale of alcoholic beverages, and minors are denied the legal right to buy them. Yet, such legal controls are found to have little effect on actual use and abuse of alcohol.

Legal Controls Ineffective

A State of New York study found no consistent relationship between excessive drinking -- as measured by drunk-driving and public intoxication arrests, admissions to mental hospitals, or statistics on alcoholism rates -- and sales through state monopoly on private liquor stores. Nor was there a link between excessive drinking and the number of liquor stores in a given area. The conclusion was that the various legal control systems used in the United States bore no relationship to the extent or nature of alcohol use, or alcohol problems.

As for minimum age laws, which make it illegal to sell alcohol to persons under 18 in some states or 21 in others, again such controls are found ineffective, and invite disrespect for the law. Most young people start experimenting with alcohol when considerably under the legal age -- usually at around 14 years.

Preaching and scare tactics have also generally met with failure. People continue to drink, and a small but significant percentage drink to excess.

Parents as Teachers

The most influential teachers of responsible or irresponsible drinking customs are parents. Children tend to follow the drinking patterns of their families and their social group. Many see drinking occurring harmlessly in their homes as a normal part of adult behavior. In some families, even young children are allowed to drink with their families on special occasions. Children and adults from such backgrounds are unlikely to respond well to a hard-line campaign against all alcohol as a "poison," or to accept the view that drinking is immoral, and they are unlikely themselves to abstain. Fortunately, such individuals do not seem to have problems as adults in controlling their drinking behavior even though they may drink considerably.

On the other hand, children from strongly abstaining families who later rebel, or those from families in which there is uncertainty about alcohol -- either because parents differ in their attitudes, or because what they say and what they do are clearly in disagreement -- run a greater risk of developing drinking problems.

Teaching Responsible Drinking

Public education campaigns that stress only the dangers of alcoholism are unproductive. It is as if driver-education courses in schools were concerned only with the bloody results of speeding and reckless driving. This might frighten a few, but would not produce many students who know how to drive safely.

At the heart of many alcohol prevention programs today is the recognition that responsible drinking behavior depends largely on knowing how to drink.

Teachers now encourage individuals to assume responsibility for their own drinking behavior. They encourage abstinence for those who choose it, but accept the fact that many will choose to drink. Those who drink are helped to understand how alcohol may affect them, and to behave in a responsible manner in their use of alcohol.

The idea of teaching people to drink responsibly is not new. It is patterned on the safety approach to driving and other risky activities. It also draws on the experiences of those cultural groups which have shown over many centuries an ability to use alcoholic beverages with a minimum of danger.

Principles for Responsible Drinking

1. It is not essential to drink. The youth or adult who decides to abstain from alcohol for moral, health, economic, or any other reasons, should not be pressured to drink by other members of her/his own group.

2. Excessive drinking does not for example indicate adult status, virility, or masculinity. One can no more establish his manhood by his ability to hold a large amount of liquor than by his ability to hold a large amount of dessert.

3. Uncontrolled drinking or alcoholism is an illness. Children, including the children of alcoholic parents, should be aware that alcoholism is not a perversity, not necessarily a character defect, and not even the direct effect of drinking. They should know that an alcoholic, like a victim of diabetes or tuberculosis, is a sick person who can and should be helped.

The National Program

Traditionally, major governmental responsibility for the control of alcoholism has been assumed by the states and local communities, usually through their mental health or public health programs. On such activities, during the early 1960's, these agencies spent between roughly $15 and $20 million a year. Various federal agencies provided some collaborative assistance in these control programs, and furnished support for a limited amount of research.

Beginning in 1966, the Federal Government joined in a full partnership with state and local organizations, public and private, to develop a unified, coordinated program of control and prevention based on a new national policy in which the gravity of the problem was fully recognized.

The Presidential Directive

In March, 1966, in his Health Message to the Congress, President Lyndon B. Johnson called for the start of the new program. He said:

> *The alcoholic suffers from a disease which will yield eventually to scientific research and adequate treatment. Even with the present limited state of our knowledge, much can be done to reduce the untold suffering and uncounted waste caused by this affliction. I have instructed the Secretary of Health, Education, and Welfare to appoint an Advisory Committee on Alcoholism; establish in the Public Health Service a center for research on the cause, prevention, control, and treatment of alcoholism; develop an education program in order to foster public understanding based on scientific fact; and work with public and private agencies on the State and local level to include this disease in comprehensive health programs.*

The Health, Education, and Welfare Program

The President's directive speeded planning which had already been underway within the Department of Health, Education, and Welfare. The expanded program was organized during the next few months, and formally announced in October, 1966. Centered in the Department of HEW, it has set two main goals to be attacked simultaneously. One is to give ideas to those who need them now, through the mobilization of existing resources and the production of additional health manpower and health facilities. The second is long-range: to develop effective, practical and acceptable methods of preventing alcoholism and excessive drinking in all their destructive forms, and to develop improved therapeutic techniques.

In order to achieve these objectives, a broad departmental policy was enunciated by John W. Gardner, Secretary of HEW, to highlight these points:

- Improved coordination of the alcoholism activities of the Department's constituent agencies.

- Fostering of closer relationships, improved communications, and other collaborating between the Department and non-federal groups interested in alcoholism.

- Creation of a national action policy based upon an awareness that alcoholism is a treatable and preventable disease.

- Development of a broad-based, multi-disciplined, integrated intramural and extramural program of basic and applied alcohol research and demonstration.

- Development of a program of education based on sound, scientific facts for the health professions and the public of drinking and alcoholism.

- Development of means to enable states and local committees to utilize effectively both existing and new private, public and voluntary agency resources in the development of comprehensive services -- medical, social welfare, vocational rehabilitation and other therapeutic, preventive and supporting measures -- to meet the needs of alcoholics and their families.

Intra-governmental Coordination

To improve coordination within the Department of HEW, an internal committee -- established originally in 1964 -- began intensifying its operations early in the spring of 1966. In this group are representatives of the Department's major operating agencies: the Public Health Service, including especially the National Institute of Mental Health; the Office of Education; the Vocational Rehabilitation Administration; the Welfare Administration, including the Children's Bureau; the Social Security Administration; the Food and Drug Administration; and Saint Elizabeth's Hospital.

Chairman of the internal committee is the Assistant Secretary for Health and Scientific Affairs.

By the summer of 1966, informal liaison was established between this committee and representatives of the Veterans Administration, the Civil Service Commission, the Department of Commerce, the Department of Defense, the Department of Justice, the Department of Labor, and other one or more aspects of alcoholism control.

National Coordination

To improve coordination between governmental and non-governmental agencies, a National Advisory Committee on Alcoholism was appointed by the Secretary to give advice and guidance on broad long-range policies, help speed the dissemination of information quickly and accurately between all major interested groups in the field, and prevent needless duplication or overlapping of efforts. Included on the committee are 18 representatives of medicine, social work, labor, industry, vocational rehabilitation, education, hospital groups, the law, the clergy, and voluntary agencies.

National Action Policy

To mobilize existing resources and existing knowledge for the care of those already afflicted with alcoholism, the policy enunciated by the secretary called for a number of steps based on sound economic principles.

Among the recommendations were these:

1. Hospitals, clinics, nursing homes, and medical centers should be encouraged to admit and treat the alcoholic routinely as his or her medical needs indicate.

2. Physicians and other health workers should be encouraged to accept, treat, and counsel alcoholic patients within the limits of their professional competence.

3. Within the framework of their respective functions and responsibilities, health, education, and welfare agencies - public and private - should be stimulated to provide necessary services to cope with the problems of alcoholism.

4. Public and private insurance carriers should be encouraged to include the treatment of alcoholism in health insurance policies.

In addition, the DHEW policy statement called upon the federal government to take a responsible position toward its own employees who might be alcoholics. The federal government, as a major employer, should recognize alcoholism as a medical problem which may seriously concern some of its employees and therefore itself; the government should include its prevention, control, and treatment in employee health programs, and it should, therefore, recognize alcoholism as a jurisdiction for disability retirement.

Research

In accordance with the President's directive, the new National Center for Prevention and Control of Alcoholism has been established in the National Institute of Mental Health, now a major bureau of the Public Health Service.

Search for New Knowledge

To develop better techniques for treatment and for prevention, these urgent needs must be met:

1. More effective drugs are required for the treatment of intoxication and delirium tremens.

2. Effective drugs or other therapeutic aids must be developed for the safe, rapid alleviation of hangover, if only to break the drinking cycle of many alcoholics who renew their alcohol ingestion as a self-treatment for hangover symptoms.

3. Better and non-addictive drugs should be developed for the relief of emotional tension and for the possible use as temporary or long-term substitutes for alcohol.

4. In order to speed the development of such agents, and the study of the disease in general, it is essential to find a simple method of reproducing alcoholism in experimental animals.

5. Further studies are needed on the effects of alcoholic beverages (and not merely alcohol) on the brain and other organs.

6. A further search should be made for any chemical, physiological, hormonal, metabolic, or other basic constitutional difference which may exist between alcoholics and normal drinkers, and which may account for addictive drinking.

7. More information should be obtained on the effects of specific foods: carbohydrates, fats, and proteins, in protecting against dangerously high blood-alcohol levels.

8. Long-term studies must be made on large numbers of human subjects, beginning early in life and continuing for many years, to determine the chemical, psychological, sociological, or cultural factors which might be related to the development of alcoholism.

9. Better techniques should be developed for one-to-one and group therapy.

For basic research aimed at prevention of alcoholism, and capitalizing on the discovery that some cultural groups seem to have a built-in protection, the following are required:

1. Nationwide epidemiological research is needed to describe and measure the problem; to replace present vague estimates and impressions with statistically significant, up-to-date information on the drinking patterns of Americans; on the actual size and costs of such problems as alcoholism in industry, drunk driving and excessive juvenile drinking; and on any changes which may occur as the result of control efforts.

2. Reliable methods are needed to measure the numbers of alcoholics in specific geographical areas, vocations, races, age groups, and other socio-economic classifications.

3. More detailed studies are needed on the major low-incidence and high-incidence cultural groups, to determine differences which may be significant as protective factors.

4. Analysis is needed on attitudes associated with dangerous drinking on the one hand and with safe drinking on the other; development of methods of influencing or modifying such attitudes among children and adults. Considerable research must be focused on changing or improving the attitudes of parents toward drinking so that they will wisely guide their children's experience with alcohol.

ALCOHOL IN COMBINATION WITH OTHER DRUGS

Great caution is in order if alcohol is ingested in combination with other drugs. Mixed with alcohol, sleeping pills, sedatives, tranquilizers, and antihistamines may be lethal. The risk involves two factors.

First, even moderate amounts of alcohol impair judgment so that a person influenced by alcohol may miscalculate and take a damaging or deadly overdose. Second, extreme hazard exists in combining more than one depressant, and all the drugs in question are depressants. For example, when alcohol and a hypnotic or sedative containing a barbiturate are taken in combination, the combined effect is much greater than when an equivalent dose of either is taken alone. It is well established that barbiturates add to the depressant action of alcohol. The same is true of most tranquilizers taken with alcohol.

A somewhat different, but equally dangercus, situation exists when alcohol is combined with the antihistamines which relieve allergic conditions. An adequate dose may make a person drowsy. If that drowsiness is accentuated by alcohol, the person may be too sleepy to drive a car or to perform other activities which require full alertness and attention.

Young people these days all too frequently use various drugs without the advice or prescription of a physician. They use them in various combinations to relieve boredom, feelings of inadequacy, anxiety, depression, or possibly "just for kicks," as they put it. This self-administration can be deadly.

Such consumption of drugs, including alcohol, may well lead to increasingly dangerous doses and combinations. It usually is done without any plan and it may well go on forever, until stopped by death or serious illness. It replaces the initiative to seek and apply more effective non-drug means to resolve human pains and frustrations of an individual or social nature.

Using alcohol and other non-narcotic drugs for relief of personal discomforts has limits. Frequently, the soothing or thrilling effects decrease even as the amount of drugs taken increases. In frantic search for renewed benefits, the drug user may turn to the "hard" narcotics. So the quest for relief, which may have started with relatively innocent substances, may result in calamaties far worse than alcoholism.

DRINKING AND DRIVING

The driving task is often thought of as a relatively simple operation, but actually requires a very complex coordination of hands, feet, eyes, and ears with a continuous series of decisions about what we see, hear, and feel in relation to a variety of factors like: road conditions, traffic signs, other cars and drivers, and even our own car's performance.

Interestingly, the average driver makes about twenty major decisions for each mile driven and each one of them requires a complex, semi-automatic coordination between decisions and actions that must take place in less than one-half second. These decisions based on what a driver senses, identifies, predicts, and ultimately executes is the substance of the driving task.

What effect does alcohol have on the driving task?

Alcohol has a depressing effect on the Central Nervous System. Alcohol

- Stimulates overconfidence by depressing centers of inhibitions;
- Impairs judgment, coordination, comprehension, vision;
- Retards eye movement; and
- Slows down reaction time.

If we know this, why do people still drink and drive?

Most of us don't know this, but even if we do, it is difficult to control our behavior because when we start drinking the first area of our brain to be affected is the reticular activating system which is the center of our inhibitions. Normally, our inhibitory center tempers and partially controls our strong emotional drives. But the center of our emotions is the hypothalmus, located deep within the brain stem and it is not affected by moderate drinking. As a person begins drinking, his reticular activating system becomes desensitized and emotional reactions such as anger or fear meet with no strong inhibitory control. Alcohol-inspired overconfidence usually results.

How Does Alcohol Affect the Driving Task?

Shortly after the reticular activating system malfunctions, the left front portion of the cerebral cortex becomes impaired. The cerebral cortex, the center of our reason and judgment, controls our abilities to sense, identify, predict, and make decisions.

Increased concentration of alcohol will then affect the right rear portion of the cerebral cortex causing a depressing effect on psychomotor skills and, therefore, an inability to execute the necessary coordination of motor skills with our sensory and reasoning capabilities.

How many drinks can I take before it affects my ability to perform the driving task?

As soon as alcohol reaches the brain it begins to depress the Central Nervous System. The degree to which the CNS is depressed depends upon the concentration of alcohol in the CNS. While the actual effects of alcohol depend in part on a person's body weight, size, body fluids, amount of food in stomach and psychological makeup, the general effect can be predicted.

An average 150 pound person consuming one bottle of beer or a cocktail begins to experience a feeling of relaxation, skin becomes flushed, she/he feels warmer and her/his inhibitions are lessoned. The amount of alcohol in her/his blood is two milligrams per 100 ml. of blood.

With 2 - 3 drinks, one's judgment becomes affected due to loss of inhibitions. She/he becomes less responsible for her/his actions. Coordination is slightly off but, confidence in one's own abilities increases while actual ability decreases. Blood-alcohol (BAL) level now is .04 and the risk of having an accident is two times greater than normal.

With about 8 drinks, one staggers and sees double. Blood-alcohol (BAL) concentration is now .16 and the probability of an accident is 25 times greater than normal.

As a person increases consumption to 15 - 20, the blood-alcohol level shoots up to .40. The skin becomes clammy, pupils are dilated and she/he is on the verge of unconsciousness. Chances of an accident are extremely high --- if she/he can even manage to start her/his car.

After 20 drinks, the blood-alcohol level concentration reaches .50 and alcoholic poisoning and death are likely to occur. This blood-alcohol concentration can be measured in several ways: by chemical tests of the breath, blood, urine, or saliva.

Because a doctor is required to obtain the blood, urine, and saliva for testing, the most common form of measurement is by the breathalyzer -- an instrument that is located at every State Police unit and most towns, villages, and municipalities in New York State. The breathalyzer works on the principle that there is a constant relationship between the amount of alcohol in the blood and the amount of alcohol in deep lung air.

This is an accurate way of measuring whether a driver is impaired or intoxicated due to alcohol, but by law, it must be administered within two hours from time of arrest.

New York State's laws relate directly to blood levels. For instance -- if your blood-alcohol level is found to be .08 you can be found guilty of driving while ability impaired (DWAI) which is a traffic infraction.

If your level is .10 in New York State, you are driving illegally (per se offense) and you may be found guilty of "driving while intoxicated," DWI, either of which is a misdemeanor. Conviction on either of these counts can result in a fine of up to $500 and/or a year in jail. The second offense within 10 years is a felony and can result in a fine of $200 - $2,000 and/or 60 days to two years in jail.

Failure to submit to a chemical test results in revocation of license or permit. The reason for this is the concept of "implied consent." When you sign your driver's license or permit you are automatically implying you will obey the vehicle and traffic laws, including submitting to a chemical test.

Who are the drinking drivers?

One report indicates that roughly 80% of those convicted of DWI are social drinkers; the other 20% are the problem drinkers or alcoholics.

Heavy drinkers and alcoholics account for only about 7% of all alcohol-related accidents, but are responsible for approximately two-thrids of alcohol-related traffic deaths. The other one-third are caused by the social or moderate drinker.

Somewhat confusing? . . . We agree.

Since social drinkers as well as alcoholics are obviously causing many accidents and deaths, a more understandable term might be "problem drinker."

"Problem drinkers" have a high BAL and show a history of alcohol problems such as previous arrests, hospitalization, and social agency contacts.

The problem drinker is about one out of ten -- another statistic that may be confusing until we relate it to actual numbers -- eight million registered drivers have a drinking problem out of a total population of 114 million.

What's being done?

The problem drinker who gets behind the wheel of a vehicle presents us with a two-fold problem:

- She/he is a threat both to self and to others.

- Every countermeasure program has failed to significantly reduce the return rate of its participants.

While the first point is quite obvious, the second should leave us with many questions.

If we examine the countermeasure programs, they can be seen as having two basic forms: pre-licensing and post-licensing. In the former, little detail is spent, while the post-licensing programs have taken various approaches, among them:

- one-on-one interviews,

- small and large group lectures, and

- counseling sessions.

Unfortunately, even in the most successful program the return rate climbed back to normal after only two months.

The underlying problem in all of these programs seems to be the inability of the participants to take the first step and admit they have a drinking problem.

-CHAPTER V-

TEACHING RESOURCES

ALCOHOL RESOURCE LIST

(Annotated)

-Journals and Periodicals-

Davies, John and Barrie, Stacey. "Alcohol and Health Education in Schools," *Health Bulletin*, 29 (1): 50 - 53, 1971.

This article reviews the current status of alcohol education, giving consideration to the objectives of alcohol education and how they may be implemented.

_____. *Journal of Alcohol Education.* Published three times a year by the education section of the North American Association of Alcoholism Programs.

"It reports teacher experience and experiments and provides a reference resource for actual teaching materials, techniques, and procedures; it also is concerned with reporting new, effective and exciting programs of education more appropriate to the community, the church, and the family."

Subscriptions and general inquiry:
Ralph Daniel, Journal Executive
Journal of Alcohol Education
3500 North Logan
Lansing, Michigan 48914

Kreyes, Wilhelm. "Drug Abuse, Self Abuse and Abuse of Authority," *Canadian Psychiatric Association Journal* (Ottawa), 15 (3): 330 - 331, 1970.

Society's ambivalence toward intoxicants, particularly alcohol and marijuana, is discussed as a major problem in educating young people regarding the use of drugs.

Listen

An attractive magazine, published monthly, presenting the non-use of alcohol and narcotics as the "In Thing" for young people.

Available from:
American Temperance Society
6840 Eastern Avenue, N.W.
Washington, D.C. 20012

Morelli, Louis V. "Drug Education Training Program." *Journal of the Florida Medical Association*, 58 (4): 25 - 27, 1971.

The Florida Drug Education Training Program, for all children from kindergarten through grade 12, is training teachers in current information and knowledge of harmful drug effects, and providing education courses in drug, tobacco, and alcohol abuse.

Quarterly Journal of Studies on Alcohol. Mark Keller, Editor.

The *Quarterly Journal* is published in March, June, September, and December. It publishes reports of research from all scientific fields.

Available from:
Rutgers Center of Alcohol Studies
Rutgers University
New Brunswick, New Jersey 08903

Stacey, Barrie and John Davies. "Drinking Behavior in Childhood and Adolescence: An Evaluative Review," *British Journal of Addictions*, 65 (3): 203 - 212, 1970.

An evaluative review of various aspects of teenage drinking is presented.

-Books and Manuals-

A Dictionary of Words About Alcohol by Mark Keller and Mairi McCormick (1969)

Authoritative but not authoritarian definitions of all the important words and terms (over 1700 terms) related to alcohol and alcohol problems. The origin and meaning of the words are given along with preferred usage.

Available from:
Publications Division
Rutgers Center on Alcohol Studies
Rutgers University
New Brunswick, New Jersey 08903

Alcohol and Alcoholism

Produced by the Public Information Branch, National Institute of Mental Health, National Center for Prevention and Control of Alcoholism, Chevy Chase, Maryland 20203 (1967), 73 pp. (Excellent bibliography).

Available from:
Superintendent of Documents
U. S. Government Printing Office
Washington, D.C. 20402

Ames, Maurice. *Choose For Yourself - You and Alcohol.* New York: Random House, 1970, pp. 90.

One of a series. A forthright explanation about alcohol and its effects which lead an individual to decision about its use.

Ayers, Albert L. and Gail Gleason Milgram. *The Teenager and Alcohol.* New York: Rosen Press, 1970, pp. 96.

Excellent compendium and critique of present knowledge about alcoholism. Thirteen authorities contributed chapters dealing with six main parts of the alcohol question.

Bacon, Margaret and Mary B. Jones. *Teenage Drinking.* New York: Thomas Y. Crowell Co., 1968, pp. 228.

A presentation of research on drinking as it applies to the adolescent and his parents. The authors dispel myths regarding alcoholic use by adolescents and discuss concerns that are real: the historical role of drinking, legal implications of teenage drinking, use of alcohol in other nations, and pathological drinking.

Cain, Arthur H. *Young People and Drinking: The Use and Abuse of Beverage Alcohol.* New York: John Day, 1970.

The pros and cons on drinking are presented to the high school student in an objective and easy fashion in order that he or she may make an informed decision on the subject.

Fort, Joel. *The Pleasure Seekers, The Drug Crises, Youth and Society.* New York: Bobbs-Merrill Co., 1969, pp. 255.

Contains accurate and concise information on the history, consumption, sale, and effects of alcohol and on the relationship of alcohol abuse to accidents and crime. It also deals explicitly with alcoholism. The book is of particular value because its over-all subject is the use of drugs in society with particular emphasis on the use of drugs by young people. Alcohol is included appropriately and in context.

Lento, Anthony G. *Alcohol, Drugs and Tobacco: A Teacher's Survival Guide.* Averill Park, New York: Alchar Printing Inc., 1975.

An exciting up-to-date teacher's guide that contains many examples of learning activities a teacher can employ in the classroom.

Mann, Marty. *Marty Mann Answers Your Questions About Drinking and Alcohol.* New York: Holt Rinehart and Winston, 1970, pp. 112.

Information about alcohol, adolescent experiences with alcohol, alcohol education and implementation of alcohol education in curriculum are presented. Nature and effects of alcohol are thoroughly discussed as well as extent and problems of problem drinking and alcoholism.

Milt, Harry. *Basic Handbook on Alcoholism.* Maplewood, New Jersey: Scientific Aids Publication, 1969.

A well-written, well-documented history of temperance activities from colonial times to the present.

Needle, Richard H. and Austin E. Hill. *Basic Concepts of Alcohol.* River Forest, Illinois: Laidlaw Brothers, 1972.

An objective, factual guide, based on up-to-date information, for use of high school students in making decisions about responsible use or non-use of alcohol.

Notes on Alcohol Education for Teachers (1967).

Bulletin 371, published by the Department of Education and Department of Public Health Alcoholism Program, Lansing, Michigan.

Available from:
State of Michigan
Department of Public Health
35 North Logan
Lansing, Michigan 48914

Todd, Frances. *Teaching About Alcohol.* New York: McGraw Hill, 1964.

Factual material on alcohol (i.e., psychological effects, role of the alcohol beverage industry, teenage drinking and problem drinking are examined).

United States Department of Health,Education, and Welfare. *Alcohol and Health.* Washington, D.C.: U.S. Government Printing Office, 1972.

A thorough presentation of the extent and patterns of alcohol use and abuse in the United States, including a chapter on the causation and treatment of alcoholism.

-Pamphlets-

A Guide to Audio-Visual Material on Alcohol and Alcoholism. Rockville, Maryland: National Clearinghouse for Alcohol Information, 1973. (Xerox). Copies available from NCALI.

The availability and audience level of 51 films on alcohol use and abuse is given, with a synopsis of each.

Curriculum Guides for Primary and Secondary Levels in Alcohol Education. Rockville, Maryland: National Clearinghouse for Alcohol Information, Revised 1973. (Xerox). Copies available from NCALI.

Curriculum Guides, specified for primary and secondary alcohol education are compiled and annotated. Publishers, Addresses, and prices are included.

It's Best to Know...About Alcohol. Prepared by the Alcoholism and Drug Addiction Research Foundation of Ontario, Canada. (A cartoon-type booklet, 32 pp.)

Distributed in the United States by and available from:
National Alcoholic Beverage Control Association, Inc.
Suite 1610
5454 Wisconsin Avenue, N.W.
Washington, D.C. 20015

Michigan Alcohol Education Foundation

An extremely popular series of pamphlets at reasonable prices.

Available from:
Michigan Alcohol Education Foundation
Box 212
Lansing, Michigan 48902

Rutgers Center of Alcohol Studies

Located at Rutgers University, the Center of Alcohol Studies has literally become the nucleus of research, information, and teaching in the area of alcohol studies for the western world.

Publications Division, Rutgers Center of Alcohol Studies
Rutgers University
New Brunswick, New Jersey 08903

The Drinking Game and How to Beat It. 1970, pp. 47. Excellent for grades 9 - 12.

The text pre-supposes the desirability of moderate drinking and is valuable for social drinkers who are interested in becoming or remaining "safe" drinkers.

Available from:
The Benjamin Co., Inc.
485 Madison Avenue
New York, New York 10022

Thinking About Drinking. Prepared and produced by the Children's Bureau and the National Institute of Mental Health.

The pamphlet was prepared for young people as a basis for discussion of attitudes about drinking.

Listed as Public Health Service Publication No. 1683, Children's Bureau Publication No. 456.

Available from:
Superintendent of Documents
U. S. Government Printing Office
Washington, D.C. 20402

Unterberger, H. and L. DiCicco. "Alcohol Education Re-Evaluated." *Bulletin of the National Association of Secondary School Principles,* 52: 12 - 29, 1968.

A critical analysis of the alcohol education curriculum in public schools.

What Everyone Should Know About Alcoholism. (1969 ed., 15 pp.)

A unique combination of words and graphics are featured in this pamphlet, presenting the major facts about alcoholism.

Available from:
Channing L. Bete Company, Inc.
45 Federal Street
Greenfield, Massachusetts 01301

What Happened to Joe and His Drinking Problem. 1971, pp. 26. Prepared by Alcoholics Anonymous.

This pamphlet is concerned with the effects of habit-forming drugs on alcoholics. It stresses that those who are alcoholics may also be prone to addiction to other drugs. Comic book format.
Available from:
Alcoholics Anonymous World Services, Inc.
P. O. Box 459, Grand Central Station
New York, New York 10017

-Audio-Visual Materials-

Audio-Visual Materials on Alcohol and Alcoholism. (1974 Edition, 34 pp.)

A list of films dealing with alcohol abuse and alcoholism; includes description of content, distributor, sale and rental fees, and audience level. Dept. H.E.W. Publication No. (ADM) 74 - 32.

Available from:
National Clearinghouse for Alcohol Information
P. O. Box 2345
Rockville, Maryland

Education Media Council. "Educational Media Index," McGraw Hill Book Company, Inc., New York, 1964.

A guide to films, phonotapes, video tapes, charts, slides, etc. Vol. 8 deals with health, safety, and home economics.

Educators Guide to Free Films, John Diffor, Mary Horkeimer, and John Fowkes, (eds.) Educators Progress Service, Randolph, Wisconsin. Annual.

Educators Guide to Free Filmstrips. John Diffor and Mary F. Horkheimer (eds.) Educators Progress Service, Randolph, Wisconsin. Annual.

Index to 16mm Educational Films. National Information Center for Educational Media, McGraw Hill Book Company, New York, N.Y. 1967.

U. S. Government Films. This catalog lists motion pictures and filmstrips for sale by the national Audiovisual Center, General Services Administration, Washington, D.C. 20409

-General Sources for the Teacher-

Write to the sources listed below for catalogues and/or materials dealing with your specific topic in the area of alcohol. Most of the sources listed provide either free or inexpensive materials.

1. AL-ANON FAMILY GROUP HEADQUARTERS
   P. O. Box 182
   Madison Square Station
   New York, New York 10010

2. ALCOHOL & DRUG PROBLEMS ASSOCIATION OF NORTH AMERICA
   1130 17th Street, N.W.
   Washington, D.C. 20036.

3. ALCOHOL EDUCATION FOUNDATION
   515 North 6th Street
   Springfield, Illinois 62702

   An affiliate of ILLCAAP - Illinois Church Action on Alcohol Problems.

   Materials and services available to schools, churches, and civic organizations. (Pamphlets, films, alcohol and narcotics-related filmstrips, etc.)

4. ALCOHOLICS ANONYMOUS WORLD SERVICES, INC.
   P. O. Box 459
   Grand Central Station
   New York, New York 10017

5. ALCOHOLISM SUBCOMMITTEE, WORLD HEALTH ORGANIZATION
   Palais Des Nations
   Geneva, Switzerland

6. ALLIED YOUTH, INC.
   Rosslyn Building
   Arlington, Virginia 22209

7. AMERICAN ACADEMY OF PEDIATRICS
   P. O. Box 1034
   Evanston, Illinois 60204

8. AMERICAN ASSOCIATION FOR HEALTH, PHYSICAL EDUCATION, AND RECREATION
   1201 16th Street, N.W.
   Washington, D.C. 20036

9. AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE
   1515 Massachusetts Avenue, N.W.
   Washington, D.C. 20005

10. AMERICAN COUNCIL ON ALCOHOL PROBLEMS
119 Constitution Avenue, N.E.
Washington, D.C. 20002

11. AMERICAN COUNCIL ON EDUCATION
One DuPont Circle
Washington, D.C. 20036

12. AMERICAN HOSPITAL ASSOCIATION
840 North Lake Shore Drive
Chicago, Illinois 60610

13. AMERICAN MEDICAL ASSOCIATION
535 North Dearborn Street.
Chicago, Illinois 60610

14. AMERICAN PHARMACEUTICAL ASSOCIATION
2215 Constitution Avenue, N.W.
Washington, D.C. 20037

15. AMERICAN PUBLIC HEALTH ASSOCIATION
1015 Eighteenth Street, N.W.
Washington, D.C. 20037

16. AMERICAN SCHOOL HEALTH ASSOCIATION
ASHA Building
Kent, Ohio 44240

17. HEALTH AND WELFARE DIVISION, METROPOLITAN LIFE INSURANCE COMPANY
One Madison Avenue
New York, N.Y. 10010

18. LICENSED BEVERAGE INDUSTRIES, INC.
155 East 144th Street
New York, N. Y. 10017

19. MENTAL HEALTH MATERIALS CENTER
419 Park Avenue, S.
New York, N. Y. 10016

20. MICHIGAN COUNCIL ON ALCOHOL PROBLEMS
728 West Allegan
Lansing, Michigan 48902

21. NATIONAL CENTER FOR PREVENTION AND CONTROL OF ALCOHOLISM
National Institute of Mental Health
5454 Wisconsin Avenue
Chevy Chase, Maryland 20203

23. NATIONAL COUNCIL ON FAMILY RELATIONS
1219 University Avenue, S.E.
Minneapolis, Minnesota 55414

24. NATIONAL SAFETY COUNCIL
425 North Avenue
Chicago, Illinois 60606

25. NATIONAL TRANSPORTATION SAFETY BOARD
Department of Transportation
Washington, D.C. 20591

26. NEBRASKA MASTER POISON INFORMATION CENTER
Children's Memorial Hospital
502 South 44th Street
Omaha, Nebraska 68105

27. NEW YORK STATE DEPARTMENT OF MENTAL HEALTH
Division of Alcoholism
44 Holland Avenue
Albany, New York 12208

28. NORTH AMERICAN ASSOCIATION ON ALCOHOLISM PROGRAMS
1130 17th Street, N.W.
Washington, D.C. 20036

29. RUTGERS CENTER OF ALCOHOL STUDIES
Rutgers University
State University of New Jersey
New Brunswick, New Jersey 08903

30. SCIENCE RESEARCH ASSOCIATION, INC.
259 East Erie Street
Chicago, Illinois 60611

31. SECTION ON ALCOHOLISM PROGRAMS
Department of Mental Health
401 South Spring Street
Springfield, Illinois 62706

32. SOCIETY FOR PUBLIC HEALTH EDUCATION, INC.
655 Sutter Street
San Francisco, California 94102

33. STERLING FILMS, INC.
866 Third Avenue
New York, N.Y. 10022

34. TEXAS ALCOHOL NARCOTICS EDUCATION, INC. PUBLISHERS
"Tane Press"
2814 Oak Lawn Avenue
Dallas, Texas 75219

35. THE CHRISTOPHER D. SMITHERS FOUNDATION
405 Park Avenue
New York, N.Y. 10025

36. THE WORLD MEDICAL ASSOCIATION, INC.
10 Columbus Circle
New York, New York 10019

37. UNITED STATES INDUSTRIAL CHEMICALS, INC.
60 East 42nd Street
New York, New York 10017

TEAR OUT AND USE AS ORDER FORM

NATIONAL CLEARINGHOUSE FOR ALCOHOL INFORMATION

Publications Order Form

NAME _____ TITLE OF PRESENT POSITION _____

BUSINESS/ORGANIZATION _____

MAILING ADDRESS (STREET, _____ CITY, _____ STATE, _____ ZIP CODE) _____

AREA CODE _____ TELEPHONE _____ EXTENSION _____

By checking either of the boxes below, you become a subscriber to the Clearinghouse periodical(s) described:

☐ ALCOHOL AND HEALTH NOTES. This monthly newsletter provides information and comments to a broad audience working in the field and to the concerned public. (No charge.)

☐ ALCOHOL HEALTH & RESEARCH WORLD. Intended for all professionals involved in the treatment, research and prevention of alcohol abuse and alcoholism, this quarterly bulletin provides in-depth coverage of specific topics related to alcohol. (No charge.)

The publications listed below are available in limited quantity at no charge from the National Clearinghouse for Alcohol Information. If you would like to receive a copy of any item, mark the box next to the title.

☐ ALCOHOL: SOME QUESTIONS AND ANSWERS. Several questions concerning the effect of alcohol on the body and the reasons why people drink are answered briefly. 14pp. #105

☐ FIRST SPECIAL REPORT TO THE U.S. CONGRESS ON ALCOHOL AND HEALTH. A substantial portion of the current scientific knowledge on the health consequences of using alcoholic beverages is summarized. 121 pp. #51

☐ ALCOHOL AND ALCOHOLISM. This report presents some of the highlights of modern research on drinking and alcoholism, based on technical articles published in scientific literature as well as on views expressed by leading authorities in the field. 42 pp. #69

☐ DEVELOPING COMMUNITY SERVICES FOR ALCOHOLICS: SOME BEGINNING PRINCIPLES. This book presents specific information about alcoholism and provides a guide for communities to develop services for alcoholic persons and their families. 39 pp. #54

☐ PROCEEDINGS: SEMINAR ON ALCOHOLISM EMERGENCY CARE SERVICES. This volume of Proceedings suggests a variety of models or settings through which emergency care services can be delivered to alcoholic individuals with varying needs within communities of various resources. 98 pp. #142

☐ THINKING ABOUT DRINKING. This pamphlet was prepared for young people as a basis for discussion of attitudes about drinking. 31 pp. #101

☐ NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM. This booklet describes the program of the NIAAA which consists of research, training, development of community services and public education. A list of regional offices of the Department of Health, Education, and Welfare is included. 11 pp. #11

☐ PROCEEDINGS OF THE NATIONAL CONFERENCE OF VOCATIONAL REHABILITATION AND STATE ALCOHOLISM AGENCY DIRECTORS. The conference was held to consider coordinated rehabilitation services for people with alcoholism. 91 pp. #54

☐ OCCUPATIONAL ALCOHOLISM, SOME PROBLEMS AND SOME SOLUTIONS. Industrial alcoholism programs are discussed. A suggestion for a company policy statement is presented and the role of labor is also elaborated. 6 pp. #10

NIAAA Occupational Program Consultants for the State of _____

☐ PROCEEDINGS OF THE JOINT CONFERENCE ON ALCOHOL ABUSE AND ALCOHOLISM: February 21 - 23, 1972. The major objective of this conference was to assist in the coordination of planning and programming at the regional, State and local levels to deal with the alcoholic offender, the drinking driver, and the public inebriate. 273 pp., #157

☐ THE DRINKING DRIVER AND THE POLICE. This pamphlet offers advice to the police administrator and the law enforcement officer in dealing with the drunk driver. 10 pp. # 401

☐ THE DRINKING DRIVER AND THE COURTS. Alternative courses of action for judges, prosecutors, and defense attorneys to follow in dealing with the drunk driver are suggested. 12 pp. #402

☐ YOUNG AMERICANS. DRINKING, DRIVING, DYING. This pamphlet includes information on what young Americans can do to control drinking and driving. 10 pp. #403

☐ FIRST AID FOR THE DRUNKEN DRIVER BEGINS IN YOUR OFFICE. Written for physicians, this booklet provides information on the significant relationship between blood alcohol concentration and relative risk of crash and on the U.S. Department of Transportation's countermeasure programs. 11 pp. #404

☐ THE NATIONAL ALCOHOL COUNTERMEASURES PROGRAM. Steps for combatting drunk driving are described, including information on research and development programs, a public education campaign, State and community action programs, and Alcohol Safety Action Projects. 12 pp. #405

☐ THE PROBLEM DRINKER AND YOU. Included in this pamphlet are suggestions on what the average person can do to help stop alcohol-related traffic accidents, a list of Alcohol Safety Action Project directors, and a list of Governors' Highway Safety Representatives. 15 pp. #406.

☐ GUIDE TO AUDIO-VISUAL MATERIALS. A list of films dealing with alcohol abuse and alcoholism; includes description of content, distributor, sale and rental fees and audience level. 36 pp. #151

☐ POSTERS. 14" x 17", color. Complete set of posters listed below. #88

- ☐ Alcohol Is a Drug #88.1
- ☐ If You Need a Drink to Be Social #88.2
- ☐ What Kind of Drinker Are You? #88.3
- ☐ Ten Terrific Hangover Cures #88.4
- ☐ Typical Alcoholic #88.5
- ☐ If You Drink a Lot of Beer #88.6
- ☐ Getting Drunk #88.7

☐ BUMPER STICKER. Color drawing of cocktail with the slogan "You've Got to Know When to Say When.". #89

☐ DIRECTORY OF STATE AND LOCAL ALCOHOLISM SERVICES. Indicates State(s) for which you would like to receive a directory. #64 _____

_____

OTHER _____

Please return this form to:

National Clearinghouse for Alcohol Information
P.O. Box 2345
Rockville, MD. 20852

APPENDIX

BLOOD ALCOHOL CHART

SHOWING ESTIMATED % OF ALCOHOL IN THE BLOOD BY
NUMBER OF DRINKS IN RELATION TO BODY WEIGHT

BODY WEIGHT	DRINKS 1	2	3	4	5	6	7	8	9	10	11	12
100 lb.	.038	.075	.113	.150	.188	.225	.263	.300	.338	.375	.413	.450
120 lb.	.031	.063	.094	.125	.156	.188	.219	.250	.281	.313	.344	.375
140 lb.	.027	.054	.080	.107	.134	.161	.188	.214	.241	.268	.295	.321
160 lb.	.023	.047	.070	.094	.117	.141	.164	.188	.211	.234	.258	.281
180 lb.	.021	.042	.063	.083	.104	.125	.146	.167	.188	.208	.229	.250
200 lb.	.019	.038	.056	.075	.094	.113	.131	.150	.169	.188	.206	.225
220 lb.	.017	.034	.051	.063	.085	.102	.119	.136	.153	.170	.188	.205
240 lb.	.016	.031	.047	.063	.078	.094	.109	.125	.141	.156	.172	.188

HAS ALCOHOL AFFECTED YOUR DRIVING ABILITY?

This can be determined by the % of alcohol in your blood. You can estimate your blood-alcohol level by counting your drinks (one-drink equals one volume oz. of 100 proof whiskey or one 12 oz. bottle of beer).

Use alcohol chart shown above -- and under number of drinks and opposite your body weight find the % of blood-alcohol listed.

Subtract from this number the % of alcohol "burned up" during the time elapsed since your first drink.

Hours since 1st drink.....	1	2	3	4	5	6
SUBTRACT.....	.015%	.030%	.045%	.060%	.075%	.090%

The remainder is an estimate of the % of alcohol in your blood.

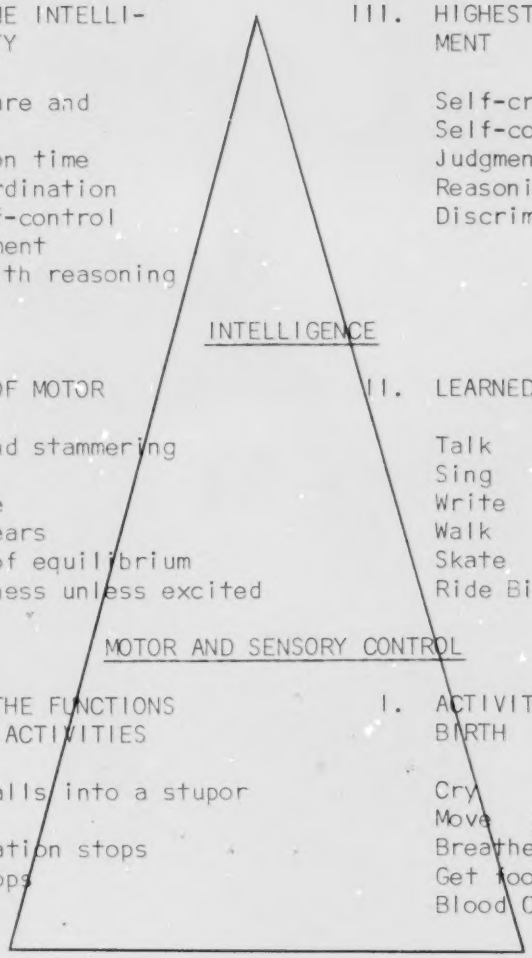
EXAMPLE: 160 lb. man, 8 drinks in 6 hours
.188% minus .090% = .098%

INTERPRETATION OF RESULTS

% of Blood-Alcohol	Intoxicated?	If You Drive a Car -
.000 to .050	You are not	Take it easy
.050 to .100	You may be	Use extreme caution
.100 & above	You are	Don't - You've had it!

FOR BEST RESULTS - DON'T DRINK AND DRIVE

THE EFFECT OF ALCOHOL ON THE BRAIN AND CENTRAL NERVOUS SYSTEM



I. DULLING OF THE INTELLIGENCE CAPACITY

Diminishes care and anxiety
Slows reaction time
Disturbs coordination
Releases self-control
Impairs judgment
Interferes with reasoning

III. HIGHEST LEVEL OF DEVELOPMENT

Self-criticism
Self-control
Judgment
Reasoning
Discrimination

INTELLIGENCE

II. DISTURBANCE OF MOTOR

Stuttering and stammering
Staggering
Seeing double
Rumbling in ears
Disturbance of equilibrium
Heavy sleepiness unless excited

II. LEARNED ACTIVITIES

Talk
Sing
Write
Walk
Skate
Ride Bicycle, etc.

MOTOR AND SENSORY CONTROL

III. LOWERING OF THE FUNCTIONS OF UNLEARNED ACTIVITIES

Individual falls into a stupor
Sound stops
Blood Circulation stops
Breathing stops

I. ACTIVITIES PERFORMED AT BIRTH

Cry
Move
Breathe
Get food
Blood Circulation, etc.

INSTINCT AND EMOTION

LEVELS OF THE BRAIN DEVELOPMENT

EFFECTS OF ALCOHOL — WORK DOWNWARD

THE HUMAN BRAIN — DEVELOPS UPWARD

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* From the Mississippi Science Supplement, published by the Mississippi State Department of Education, 1948, and Basic Information on Alcohol by Albion King, 1953.

DRINKING HABITS OF SCHOOL STUDENTS - SURVEY FORM

Grade_____ _____Age_____Sex_____Date_____

This survey is being conducted in our school as a phase of our Alcohol Education study. Please answer truthfully all the questions that apply to you. This questionnaire is not to be signed.

1. How do you personally feel about drinking alcoholic beverages?
   A. Approve_____B. Neutral_____C. Disapprove_____

2. How frequently do you drink?
   A. Never_____B. Seldom_____C. Special Occasions_____
   D. Frequently_____

3. If you do drink, do your parents: A. Approve_____
   B. Disapprove_____

4. Do your parents drink? A. Yes_____B. No_____

5. If you do drink, where did you get your first drink?
   A. Home_____ B. Friends_____ C. Stolen_____ D. Store_____

6. Why do you drink or abstain? (More than one might apply)

Drink		Abstain	
A. Curiosity	_____	A. Harm to body	_____
B. Thrill	_____	B. Laws and age	_____
C. Reduce tension	_____	C. Religious reasons	_____
D. Like taste	_____	D. Family position	_____
E. Family custom	_____	E. Moral values	_____
F. Other_____		F. Pressure not to drink	_____
		G. Other_____	

7. If you do drink, where do you do it?
   A. Home_____ B. Friends' home_____ C. School affairs_____ D. Autos_____

8. If it applies, what type of beverage alcohol do you use?
   A. Wine_____ B. Beer_____ C. Liquor _____

9. Has drinking been the cause of any personal trouble?
   A. Auto Accidents ____ B. Arrest for Possession _____ C. School ____
   D. Other_____

10. Because of drinking have you ever experienced any of the following:
    A. High____ B. Sick ____ C. Passed Out ____ D. Blackout ____

11. If you drink, did any of the following advertising methods influence you in any way: A. Radio_____ B. Television _____ C. Magazine _____
    D. Newspaper _____ E. Movies _____ F. None of the above _____

Note to teachers. It is suggested that before a survey of this type is attempted, have the full support and approval of your administration.

STUDENT EVALUATION FORM

NAME OF SCHOOL_____Grade_____Sex_____Age_____

1. As a result of this alcohol study:
   a. What is your attitude toward drinking? Favorable___Unfavorable___

   b. Do you have an understanding of alcoholism? Yes____ No ____

      Elaborate_____
      (Use Reverse Side)

   c. What is your attitude toward the alcoholic?

      A sick person____ Sympathetic____ Weak-willed____ Hostile____

2. Which of the following activities did you find most profitable? Rank the ones you select by number, i.e., 1 - 2 - 3, etc.:

   a. Committee work _____
   b. Interviews _____
   c. Speakers _____
      Specify_____
   d. Posters - charts _____
   e. Audio-Visual Aids _____
   f. State Consultant _____
   g. Class discussion _____
   h. Experiments _____
   i. Oral Reports _____
   j. Written Reports _____
   k. Lectures by teacher _____
   l. Research Reading _____
   m. Other Activities _____
      List_____

3. What part of the unit did you find to be of most value?_____

   _____

4. How do you feel about the amount of time devoted to the study of alcohol?

   Adequate _____ Too much _____ Too little _____

5. Which of the audio-visual aids were of most value?_____

   _____

6. Which books and pamphlets were most informative?_____

   _____

7. Circle the grade or grades in which you think that alcohol studies should be taught. 5th or earlier 6th 7th 8th 9th 10th 11th 12th

8. Do you feel that there was unnecessary duplication in the material covered in this class and that covered in another class or classes?

   Yes_____ No _____